

LOUDOUN COUNTY, VIRGINIA TMDL ACTION PLAN FOR:

REDUCING NITROGEN, PHOSPHORUS AND SEDIMENT ENTERING THE CHESAPEAKE BAY



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Certification

Document: **Chesapeake Bay TMDL Action Plan**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature

Date

Printed Name

Title

Chesapeake Bay TMDL Action Plan Executive Summary

On December 29, 2010, the federal Environmental Protection Agency (EPA) published the Chesapeake Bay Total Maximum Daily Load (TMDL) for Nitrogen, Phosphorus and Sediment. The TMDL identified nitrogen, phosphorus, and sediment as the Pollutants of Concern (POCs) causing the impairment to the Chesapeake Bay. Loudoun County, Virginia operates a regulated small municipal separate storm sewer system (MS4) located within the Washington DC – VA – MD Urbanized Area boundary established by the 2000 U.S. Census. Discharges from the County's MS4 are regulated under the Clean Water Act and State Water Control Law and, as such, are required to develop a Chesapeake Bay TMDL Action Plan to address the TMDL in accordance with the Virginia General Permit for the Discharge of Stormwater from Small MS4s (MS4 General Permit).

In development of this TMDL Action Plan, the County conducted an evaluation of its existing legal authorities and determined that it does not anticipate requiring additional or new legal authorities in order to comply with the MS4 General Permit conditions. As part of the TMDL Action Plan, Loudoun County will develop nutrient management plans on 11 County facilities, totaling 75.4 acres, where nutrients are applied to greater than one contiguous acre of managed turf. The County will also continue to utilize its Department of Environmental Quality (DEQ)-approved Virginia Stormwater Management Program (VSMP) as the Means and Methods to address discharges from New Sources. The County has not identified any future land disturbing projects that qualify for the grand-fathering condition established under its VSMP.

As described in Chapter 5, the County will rely on the retrofit of existing stormwater management facilities, land-use conversion of County-owned lands, oversizing of stormwater best management practices (BMPs) and redevelopment on prior developed lands as its Means and Methods to remove the required 851.7 lbs/yr of nitrogen, 71.2 lbs./yr. of phosphorus, and 78,245.0 lbs./yr. of sediment for this permit cycle.. Excess reductions generated by implementation of this plan will be credited towards any future MS4 POC reduction requirements. The County estimates that it will cost \$1,221,449.00, including \$471,250.00 in Stormwater Local Assistance Fund grants, to meet the required reductions in Existing Sources as identified in this TMDL Action Plan.

Chapter 1: Introduction

On December 29, 2010, the federal Environmental Protection Agency (EPA) published the Chesapeake Bay Total Maximum Daily Load (TMDL) for Nitrogen, Phosphorus and Sediment. The TMDL identified nitrogen, phosphorus, and sediment as the POCs causing the impairment to the Chesapeake Bay. As a result, the TMDL established pollutant discharge limitations for both point sources, which are regulated under the federal Clean Water Act and the Virginia State Water Control Law, and non-point sources, which are not regulated.

Loudoun County, Virginia operates a regulated small MS4 in the eastern portion of the County located within the Washington DC – VA – MD Urbanized Area boundary established by the 2000 U.S. Census (Figure 1). Discharges from the MS4 are regulated under the Clean Water Act and State Water Control Law and, as such, are required to meet any conditions established by the regulatory authority (Virginia Department of Environmental Quality [DEQ]) including those necessary to meet the TMDL requirements. For the County, these conditions are contained in the Special Condition for Chesapeake Bay (Special Condition [Appendix 1]) found in the MS4 General Permit. The Special Condition requires that the County develop a Chesapeake Bay TMDL Action Plan that includes:

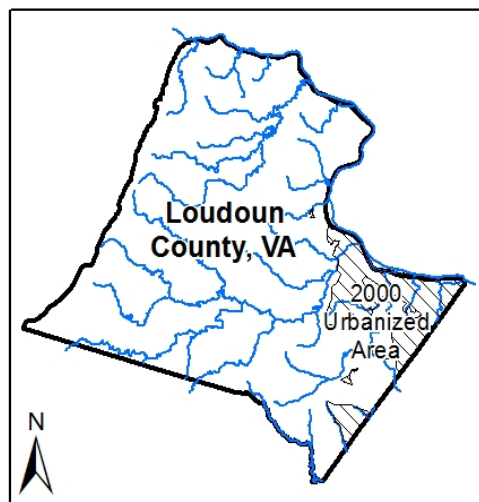


Figure 1: Loudoun County and Associated 2000 U.S. Census Urbanized Area

- An assessment of the County's current MS4 Program and existing legal authorities to determine if the County has sufficient legal authority to adequately address the Special Condition requirements
- Identification of any new or additional legal authority necessary to adequately address the Special Condition requirements
- Identification of the Means and Methods by which the County will address New Sources of the POCs
- An estimate of the Existing Source loads and calculated total POC required reductions
- Identification of the Means and Methods by which the County will address the Existing Source required reductions and an associated implementation schedule
- Identification of the Means and Methods by which the County will offset any increased loads from New Sources that initiated construction between July 1, 2009 and June 30, 2014
- Identification of the Means and Methods by which the County will offset any increased loads from grandfathered projects that initiate construction after July 1, 2014
- A list of grandfathered projects
- An estimate of the cost for the County to implement the Special Condition

In addition, the County must provide an opportunity for the receipt and consideration of public comment regarding the Chesapeake Bay TMDL Action Plan.

This document represents Loudoun County's Chesapeake Bay TMDL Action Plan for the 2013-2018 MS4 General Permit cycle. The County will address any applicable modifications to the TMDL or Virginia Watershed Implementation Plan that occur during the current permit term as part of the County's permit reapplication, which is currently scheduled for submission to DEQ in March 2018.

Chapter 2: Current Program and Existing Legal Authority/New or Modified Legal Authority

Under the General Permit's Special Condition for the Chesapeake Bay TMDL (Special Condition), Loudoun County is required to:

- Conduct a review of its currently implemented MS4 program that includes review of the County's existing legal authorities and the County's ability to ensure compliance with the Special Condition
- Identify any new or modified legal authority that the County has implemented or needs to implement in order to meet the conditions of the Special Condition

Compliance with the Special Condition represents adequate progress during the current MS4 General Permit cycle towards achieving TMDL wasteload allocations consistent with the assumptions and requirements of the Chesapeake Bay TMDL. The Special Condition further defines the compliance expectations for Chesapeake Bay TMDL Action Plan implementation to the maximum extent practicable as well as demonstrating adequate progress. The following actions must be completed in order to demonstrate adequate progress:

- The County must develop and implement Nutrient Management Plans (NMPs) in accordance with the schedule identified in the General Permit.
- The County must address POC loads from Transitional Sources through implementation of construction site stormwater runoff controls in accordance with the MS4 General Permit.
- The County must implement Means and Methods to address discharges from New Sources. These include:
 - New development and development of prior developed lands after July 1, 2014;
 - Offset 5% of the POC loads added through new construction between July 1, 2009, and June 30, 2014; and,
 - Offset of the increase in the POC loads from grandfathered projects initiating construction after July 1, 2014, before completion of the individual grandfathered project.
- The County must implement Means and Methods sufficient to meet the required 5% reductions of POC loads from Existing Sources in accordance with the Special Condition.

The following assessment reviews the County's existing legal authorities and ability to comply with the Special Condition in the current permit cycle.

2.1 Development and Implementation of Nutrient Management Plans

Compliance Expectations

Loudoun County originally identified nine County properties where nutrients are applied to an area of managed turf that is greater than one contiguous acre. These properties were included in the County's 2014 MS4 Annual Report. As part of a follow-up evaluation, the County has identified two additional properties where nutrients are applied to an area meeting the minimum threshold which requires a NMP. Table 1 contains the updated list of County properties requiring NMPs along with their associated acreage and geographic location.

Table 1: Loudoun County Properties Requiring Nutrient Management Plans

Facility Name	Area (Acreage)	Latitude	Longitude
Bles Park	8.2	39.07	-77.45
Byrnes Ridge Park	10.6	38.93	-77.56
Chick Ford Field and Ryan Bickel Field	2.0	39.02	-77.48
Conklin Park	4.2	38.91	-77.52
Greg Crittenden Park	2.1	39.03	-77.50
Lyndora Park	3.5	38.99	-77.49
Ray Muth Sr. Park	5.4	39.04	-77.46
Scott Jenkins Park	2.8	39.14	-77.64
Trailside Park	3.7	39.05	-77.51
Claude Moore Park	11.8	39.01	-77.40
Potomack Sportsplex	21.1	39.05	-77.38
Total Acreage	75.4		

The MS4 General Permit requires that the County implement turf and landscape NMPs on all 75.4 acres by June 30, 2018. In addition, the MS4 General Permit establishes the following measurable goals schedule:

- By June 30, 2015, the County will develop and implement NMPs on 15% of the identified managed turf and landscape.
- By June 30, 2016, the County will develop and implement NMPs on an additional 25% of the identified managed turf and landscape.
- By June 30, 2017, the County will develop and implement NMPs on an additional 35% of the identified managed turf and landscape.

The County has some flexibility in meeting this implementation schedule as the compliance requirement contained in the MS4 General Permit prohibits the County from missing the targeted milestones for two consecutive years or missing the completion date for development and implementation of 100% of the required NMPs.

Compliance Assessment

The facilities identified in Table 1 are owned and operated by the County. As such, the County has the authority necessary to develop and implement the required NMPs. The County must develop NMPs for those properties identified in Table 1 in accordance with the schedule identified in the MS4 General Permit and included in the County's MS4 Program Plan.

Additional Legal Authority Modifications or New Legal Authorities Necessary

The County does not anticipate requiring additional or new legal authorities in order to comply with the requirement that it develop and implement NMPs for the properties identified in Table 1.

2.2 Control of Pollutant of Concern Loads from Transitional Sources

Compliance Expectations

Transitional POC sources are POC sources that are temporary in nature such as construction activities. The MS4 General Permit defines the compliance expectations for control of transitional POCs to the maximum extent practicable while demonstrating adequate progress towards meeting the pollutant load reduction as “implementation of the minimum control measure in Section II related to construction site stormwater runoff control in accordance with the [MS4 General Permit].”

Compliance Assessment

Loudoun County has the legal authority to implement the necessary programs, procedures and protocols to meet the compliance expectations for controlling POC loads from Transitional Sources. The *Loudoun County Small MS4 Program Plan, Minimum Control Measure IV- Construction Site Stormwater Runoff Control* describes the County's existing program, legal authorities and compliance commitments. Loudoun County operates as a State-delegated Virginia Erosion and Sediment Control Program (VESCP) authority under Chapter 1220 (Erosion Control) of the Codified Ordinances of Loudoun County. The purpose of Chapter 1220 (last updated October 2011) is to prevent the degradation of properties, stream channels, waters, and other natural resources of Loudoun County by establishing requirements for the control of soil erosion, sediment deposition, and stormwater runoff; furthermore, it establishes procedures whereby these requirements shall be administered, enforced, and contribute thereby to the health, safety, and general welfare of the citizens of Loudoun County.

State-certified Erosion and Sediment Control (E&S) plan reviewers ensure the adequacy of the submitted E&S plans to meet the minimum standards required under Chapter 1220. The VESCP was found to be ‘consistent’, per its last State review in November 2007, with the Virginia Erosion and Sediment Control Law and regulations.

The County's VESCP is more stringent than the required program, as it also requires ESC plans for:

- Land disturbing activities exceeding 5,000 square feet
- Land disturbing activities that occur on steep slopes
- Land disturbing activities that occur within the Mountainside Development Zoning Overlay District
- Land disturbing activities that occur within the Limestone Zoning Overlay District

The County also operates as a State-delegated Virginia Stormwater Management Program (VSMP) authority. Local authority for operation is authorized under Chapter 1096 (Stormwater Management) of the Codified Ordinances of Loudoun County, which was last updated May 21, 2014. For construction activities that result in a land disturbance of greater than one acre, the County will not issue a land disturbance permit until the requirements of the VSMP General Permit for Stormwater Discharges from Construction Activities are met.

The County Department of Building and Development performs the E&S plan reviews and approvals, E&S inspections, and any related enforcement actions. All enforcement actions are handled collaboratively with the County Attorney's Office, and the E&S inspections are conducted under a DEQ approved alternate inspection program. The inspection schedule is derived by prioritizing sites based on disturbed area, slope, distance to a watercourse, buffer, vegetation, and distance to downstream properties. All inspections are conducted by certified and dedicated inspectors whose only task is to inspect the ESC controls using standardized checklists. Building inspections and engineering inspections are conducted separately by other personnel.

Additional Legal Authority Modifications or New Legal Authorities Necessary

The County does not anticipate requiring additional or new legal authorities in order to comply with the requirement that it control transitional POCs to the maximum extent practicable while demonstrating adequate progress towards meeting the pollutant load reduction as “implementation of the minimum control measure in Section II related to construction site stormwater runoff control in accordance with the [MS4 General Permit].”

2.3 Control of POC Loads from New Sources

Compliance Expectations

The County must implement Means and Methods to address the control of POC loads from New Sources in accordance with the Minimum Control Measure for Post-Construction Stormwater Management in New Development and Development on Prior Developed Lands. In addition, the County must identify projects initiated between July 1, 2009 and June 30, 2014 where the implemented water quality design criteria was less stringent than an Average Land Cover Condition (ALCC) of 16% impervious cover (IC). The County is required to offset 5.0% of these identified increases in POC loads resulting from implementation of these less stringent design requirements. Finally, the County must implement Means and Methods that ensure increases in the POC load from grandfathered projects, as defined by 9VAC25-870-48, are 100% offset prior to completion of the individual project.

Compliance Assessment

Loudoun County has the legal authority to implement the necessary programs, procedures and protocols to meet the compliance expectations regarding POC loads from New Sources. Projects approved for construction after July 1, 2014 are required to meet the VSMP water quality design criteria found at 9VAC25-870-63; and, therefore, meet the minimum design criteria. For projects that initiated construction between July 1, 2009 and June 30, 2014, the County required that the projects include design of water quality BMPs that met the State water quality design criteria equivalent to an ALCC of 16% IC. The County has determined that there are zero (0) grandfathered projects that require offsets. Therefore, the requirement to offset the increased POC load from grandfathered projects is not applicable to the County.

The Department of Building and Development is responsible for review, approval, and construction inspection of stormwater management facilities. Chapter 1096 was initially adopted on October 20, 2003 and established the County's stormwater management program. Chapter 1096 also requires that stormwater management systems “be designed, developed, improved, operated, maintained and overseen in accordance with all applicable Federal, State, and local laws, statutes, ordinances, regulations and policies. Applicable local ordinances, regulations and policies include, but are not limited to, the County Zoning Ordinance, Land Subdivision and Development Ordinance, the Facilities Standards Manual (FSM), the Virginia Erosion and Sediment Control Handbook, the drainage maintenance policies and programs of the County government, and all effective stormwater easements and maintenance agreements. The FSM established the ALCC for the water quality design standards as 16% IC. The County updated both Chapter 1096 and the FSM, effective July 1, 2014, to incorporate the requirements necessary to become an authorized VSMP authority and enforce water quality design criteria found at 9VAC25-870-63 for new development and redevelopment on prior developed lands.

Chapter 1096 provides a process for certain property owners to transfer privately-owned facilities to the County for long-term maintenance responsibilities for those portions of the storm sewer system that are located within drainage easements dedicated to the County. The County has developed and implemented written policies and procedures ensuring stormwater management facilities are designed and installed in accordance with the regulatory criteria. The County's current maintenance program includes an annual inspection of all stormwater management facilities. Once every three years, a more thorough structural inspection is performed on the wet and dry stormwater management ponds.

Where the maintenance responsibility for stormwater management facilities remains with the property owner, such as proprietary stormwater management facilities, Chapter 1096 provides enforcement capability to certify that these facilities are regularly inspected and maintained.

The County maintains a database of permanent stormwater management facilities to ensure an accurate inventory of structural, post-construction, stormwater management facilities and to ensure each facility is inspected on the agreed upon schedule.

Additional Legal Authority Modifications or New Legal Authorities Necessary

The County does not anticipate requiring additional or new legal authorities in order to comply with the compliance expectations for controlling POC loads from New Sources.

2.4 Control of POC Loads from Existing Sources

Compliance Expectations

The County is required to estimate the POC loads discharged through its MS4 using Table 2b in the MS4 General Permit and calculate the required annual load reductions to these POC loads using Table 3b in the MS4 General Permit. The County must implement sufficient Means and Methods to reduce the POC annual loads from Existing Sources based on the County calculations.

Compliance Assessment

The County intends to meet the POC annual load reduction requirements for Existing Sources by implementing a combination of the following Means and Methods:

- Retrofit of existing stormwater management facilities
- Land Use Conversion of County-owned lands
- Taking Credit for Oversized Stormwater BMP facilities designed on a more stringent ALCC than 16% IC
- Redevelopment on prior developed lands

Retrofit of Existing Stormwater Management Facilities

The County has selected the retrofit of existing stormwater management facilities as one of its Means and Methods to meet the required POC reductions during this permit cycle. For stormwater management facilities for which the County has assumed operational authority, the legal authority to implement retrofits is granted through the legal transfer of the facility to the County. For stormwater management facilities that are privately owned, the County has legal authority to negotiate and implement retrofit projects under Chapter 1096.02. Under this section, the County, at its sole discretion, may assume "maintenance, repair, and replacement of stormwater facilities and infrastructure" in accordance with a signed easement or maintenance agreement.

The County has in place, through Chapter 1096, the ability to both implement and ensure long-term maintenance of structural stormwater facilities, reductions to existing pollutants on prior developed lands, and additional reductions beyond the VSMP requirements. As the County assumes inspection and maintenance responsibilities on these stormwater management facilities, it has the legal authority and responsibility to ensure that the facility will continue to function as installed.

Land Use Conversion of County-Owned Lands

The County completed a land use conversion project at the County's Solid Waste Management facility located at 21101 Evergreen Mills Road, Leesburg, VA during fiscal year 2015. This project perpetually converted 9 acres of mowed turf into forest with the planting of 6,120 tree seedlings.

More Stringent Land Cover Condition Based on 16% IC

The County has approved water quality designs for stormwater BMPs for Existing Sources that provide more POC removal than required when using an average land cover condition of 16% impervious cover. Inspections by County staff of the stormwater management facilities assured that they were built in accordance with the more stringent design. Upon completion, the County assumed the long term inspection and maintenance responsibility for these stormwater management facilities; thus, permanently ensuring, long-term, that they continue to function as designed and constructed.

Redevelopment on Prior Developed Lands

The County will also utilize POC reductions to Existing Loads in association with redevelopment of prior developed lands. As part of the County's stormwater management program between July 1, 2009 and June 30, 2014, Loudoun County, required through Chapter 1096, that water quality designs for prior developed lands be implemented so that "the nonpoint source pollutant load shall not exceed the greater of (a) the pollutant load, based on existing conditions, minus 10 percent; or (b) the pollutant load based on an ALCC of 16 percent IC."

The County modified its redevelopment requirements, effective July 1, 2014 so that water quality designs for prior developed lands to meet the new VSMP requirements for redevelopment, which require that as part of redevelopment, water quality designs include a reduction of the phosphorus annual load by 20% for projects disturbing one acre or more and 10% for projects disturbing less than one acre.

Chapter 1096 also includes the legal authority for the County to ensure verification of long term maintenance of these facilities by requiring a dedicated easement in order that the County can provide maintenance or a maintenance agreement insuring that private maintenance is completed.

Additional Legal Authority Modifications or New Legal Authorities Necessary

The County does not anticipate requiring additional or new legal authorities to comply with the compliance expectations for reducing the POC loads from Existing Sources.

Chapter 3: Means and Methods to Address Discharges from New Sources

The County will utilize its DEQ-approved VSMP Program as the Means and Methods to address discharges from New Sources. The VSMP Program includes individual Means and Methods to design, construct, inspect and maintain stormwater management facilities. Individual descriptions of these Means and Methods can be found in the County's MS4 Program Plan, Section V. Post Construction Stormwater Management. These Means and Methods include:

- BMP 5A: Require Permanent Post-Construction BMPs per FSM
- BMP 5B: Inspect Permanent Post-Construction Stormwater BMPs
- BMP 5C: Provide Long-Term Maintenance for Operator-Owned BMPs
- BMP 5D: Require Adequate Long-Term Maintenance for Privately Maintained BMPs
- BMP 5E: Develop Methods to Address Individual Residential Lot Special Criteria
- BMP 5F: Provide Training for County Inspection Staff
- BMP 5G: Create and Maintain an Electronic Database of All Permanent Stormwater Management Facilities

As a result of the implementation of these Means and Methods:

- Stormwater management facilities for New Sources that obtain plan approval after July 1, 2014 will be designed and implemented to meet the new water quality design criteria found at 9VAC25-870-63.
- Stormwater management facilities for New Sources on prior developed lands that obtain plan approval after July 1, 2014 will be designed and implemented to reduce existing pollutant loads by 20% for land disturbing activities greater than one acre and 10% for regulated land disturbing activities less than one acre. Reductions to pollutant annual loads will be applied towards meeting the required Existing Source load reductions.
- As the County has identified zero (0) grandfathered projects, it has not selected Means and Methods to address increases in POC loads from grandfathered projects.
- New Sources initiating construction between July 1, 2009 and June 30, 2014 were required to meet the water quality design criteria equivalent to an ALCC of 16% IC as required under 9VAC25-870-96.
- The County identified 34 projects for New Sources initiating construction between July 1, 2009 and June 30, 2014 that resulted in undersized BMPs based on 16% IC. This resulted in an increase in the POC loads of 521.9 lbs./yr. of nitrogen, 189.0 lbs./yr. of phosphorus and 101,773.0 lbs./yr. of sediment. The County accounted for the increased POC loads by reducing the credit taken for the oversized BMPs as described in Chapters 5 and 6. The County will verify the long-term maintenance and upkeep of stormwater management facilities.

By continuing to implement both a VESCP and a VSMP in a manner consistent and compliant with the applicable statutes and regulations and as described in the Loudoun County MS4 Program Plan, Loudoun County will demonstrate adequate progress during this permit term towards achieving TMDL wasteload allocations consistent with the assumptions and requirements of the Chesapeake Bay TMDL and implementation, to the maximum extent practicable for addressing loads from New Sources.

Chapter 4: Estimated Existing Source Loads and Calculated Total POC Required Reductions

The County provided MS4 service to approximately 18,660 acres (5,837 impervious urban; 12,823 pervious urban) of land within the 2000 U.S. Census Urbanized Area, as of July 1, 2009. The estimated service area was calculated based on the drainage areas through developed lands discharging via the County's identified MS4 outfalls. These MS4 outfalls are located in the eastern part of the County and drain into the Upper Potomac River Tidal Fresh Maryland (POTTF_MD) and the Upper Potomac River Tidal Fresh Virginia (POTTF_VA) Chesapeake Bay Water Quality Segment-Sheds. The County's Existing Source loads based on these regulated acres are found in Table 2. The required POC annual load reduction requirements for this TMDL Action Plan are found in Table 3.

Table 2: Loudoun County MS4 Existing Source Loads for the Potomac River Basin

Sub-source	Pollutant	Total Existing Acres Served by MS4 (6/30/09)	2009 EOS Loading Rate (lbs./acre)	Estimated Total Annual POC Load Based on 2009 Progress Run
Regulated Urban Impervious	Nitrogen	5,837	16.86	98,412
Regulated Urban Pervious		12,823	10.07	129,128
Regulated Urban Impervious	Phosphorus	5,837	1.62	9,456
Regulated Urban Pervious		12,823	0.41	5,257
Regulated Urban Impervious	Total Suspended Solids	5,837	1172.32	6,842,831
Regulated Urban Pervious		12,823	175.8	2,254,283

Table 3: Loudoun County MS4 Estimated Potomac River Pollutant Reductions Required During First Permit Cycle

Sub-source	Pollutant	Total Existing Acres Served by MS4 (6/30/09)	First Permit Cycle Required Reduction in Loading Rate (lbs. /ac.)	Total Reduction Required First Permit Cycle (lbs.)	Total Reduction Required First Permit Cycle (lbs.)
Regulated Urban Impervious	Nitrogen	5,837	0.08	467.0	851.7
Regulated Urban Pervious		12,823	0.03	384.7	
Regulated Urban Impervious	Phosphorus	5,837	0.01	58.4	71.2
Regulated Urban Pervious		12,823	0.001	12.8	
Regulated Urban Impervious	Total Suspended Solids	5,837	11.71	68,351.3	78,245.0
Regulated Urban Pervious		12,823	0.77	9,873.7	

Chapter 5: Means and Methods to Meet the Required Reductions and Schedule

As identified in Table 3, Loudoun County is required to develop and implement Means and Methods during the current permit cycle to remove from annual discharge a total of 851.7 lbs. of nitrogen, 71.2 lbs. of phosphorus and 78,245.0 lbs. of sediment.

As identified in Chapter 2, the County intends to meet the reduction requirements for Existing Sources by utilizing the following Means and Methods:

- Retrofit of existing stormwater management facilities
- Land Use Conversion of County-owned Lands
-
- Oversized BMPs (some BMPs were designed with a more stringent ALCC than 16% IC)
- Redevelopment on prior developed lands
-

5.1 Retrofit of Existing Stormwater Management Facilities

The County has applied for, and received, Stormwater Local Assistance Fund (SLAF) Grants that will assist in the retrofit of existing stormwater management facilities located at Briar Patch Park and Loudoun Valley Estates, Section III. Copies of the SLAF Grant applications are included in Appendix 2 (Briar Patch Park) and Appendix 3 (Loudoun Valley Estates). The implementation of these two retrofit projects will result in the annual reduction of 252.8 lbs. of nitrogen, 83.3 lbs. of phosphorus and 51,969.7 lbs. of sediment from the Existing Source load.

5.2 Land Use Conversion of County-owned Lands

In Fiscal Year 2015, the County completed a land use conversion project at its Solid Waste Management facility located at 21101 Evergreen Mills Road, Leesburg, VA. This project converted 9 acres of mowed turf into perpetual forest with the planting of 6,120 evergreen and hardwood tree seedlings. These seedlings were randomly spaced at a density of 680 stems per acre and warranted for a one-year period. A copy of Request for Quote (RFQ) C-2133, which describes the expectations of the project, can be found in Appendix 4.

Completion of this project resulted in the annual reduction of 59.04 lbs. of Nitrogen, 3.24 lbs. of Phosphorus and 1,028.04 lbs. of sediment. In calculating these reductions, the County selected the Potomac River Land Use Conversion Efficiency for pervious to forest from Table V.H.1 found in the DEQ Guidance Memo No. 15-2005. As the project site was located outside of the 2000 Urbanized Area and thus outside of the regulated MS4 service area, the County accounted for meeting the baseline requirements¹ for unregulated urban pervious lands by subtracting 100% of the required POC load reduction from each Land Use Conversion Efficiency.

5.3 More Stringent Average Land Cover Condition (ALCC) Based on 16% Impervious Cover (IC)

The County identified 111 projects where water quality design criteria were approved for New Sources initiating construction between July 1, 2009 and June 30, 2014 that resulted in oversized BMPs based on an 16% IC equating to the annual removal of POC loads of 1,816.4 lbs./yr. of nitrogen, 577.6 lbs./yr. of phosphorus and 343,811.2 lbs./yr.

¹ Baseline reduction requirements for unregulated urban pervious lands were assumed to be 20 times the required First Permit Cycle Required Reduction in Loading Rate (lbs. /ac.) for regulated urban pervious lands identified in Table 3.

of sediment (Appendix 5). In order to identify these projects, the County reviewed plan sets for projects that started construction between July 1, 2009 and June 30, 2014 and determined the designed phosphorous removal rates. For stormwater management facilities that provided over-treatment, the County then developed the corresponding nitrogen and sediment reductions utilizing DEQ Guidance Memo No. 15-2005.

5.4 Redevelopment on Prior Developed Lands

The County will apply POC reductions resulting from redevelopment on prior developed lands towards meeting the reduction requirements for Existing Sources. As the County cannot guarantee the schedule or quantify the pollutant reductions gained by redevelopment on prior developed lands, the County will not utilize this source of POC reduction in planning for compliance. However, it will apply these reductions towards compliance when available.

The incorporation of these reductions in conjunction with the stormwater retrofit practices demonstrates adequate Means and Methods necessary to meet the required load reductions from Existing Sources during this permit term. Table 4 demonstrates that the County's implementation of this plan will exceed the necessary POC reductions identified in Table 3. The implementation of this plan will result in excess POC reductions beyond the 5% reduction requirement of 750.6 lbs./yr. of nitrogen, 403.9lbs/yr. of phosphorus, and 216,790.34lbs/yr. of sediment. This excess POC reduction will be credited towards meeting any future County MS4 reduction requirements.

Table 4: Loudoun County Determination of Compliance with Meeting Required Existing Source Load Reduction of 5% for Current Permit Cycle

Existing Source Means and Methods	Retrofits			Total Nitrogen		Total Phosphorus		Total Sediment	
	Yes / No	Type of Retrofit	Acres Treated	Existing Source Reduction (lbs./yr)	Remaining Required Reduction (lbs./yr)	Existing Source Reduction (lbs./yr)	Remaining Required Reduction (lbs./yr)	Existing Source Reduction (lbs./yr)	Remaining Required Reduction (lbs./yr)
Required Existing Source Reductions--Phase I Chesapeake Bay TMDL Action Plan (from Table 3)					851.7		71.2		78,245.0
Gwen Thompson Briar Patch Park	Yes	Constructed Wetland; Bioretention Basin	80	124.9	726.8	42.5	28.7	26,509.00	51,736.0
Loudoun Valley Estates, Section III	Yes	Constructed Wetland	75	123.9	602.9	40.8	(12.1)	25,460.10	26,275.9
Land Use Conversion at the Loudoun County Solid Waste Management Facility	No	Land Use Conversion - Pervious to Forest	9	59.04	543.9	3.24	(15.3)	1,028.04	25,247.9
Reductions Due to Oversized BMPs (more stringent ALCC Appendix 5)	N/A	N/A	N/A	1,816.4	(1,272.5)	577.6	(592.9)	343,811.2	(318,563.3)
Offset Increased Loads Due to Undersized BMPs (less stringent ALCC Appendix 6)	N/A	N/A	N/A	(521.9)	(750.6)	(189.0)	(403.9)	(101,773.0)	(216,790.3)
Excess POC Reductions Beyond the Required 5% Reduction ²	N/A	N/A	N/A	-	750.6	-	403.9	-	216,790.3

² Negative Remaining Required Reductions represent compliance with the required 5% reduction in Existing Sources. Additional reductions beyond the 5% will be applied towards meeting the 35% reduction requirements in the next MS4 General Permit Cycle)

5.5 Proposed Schedule and Milestones

Loudoun County will implement the Means and Methods necessary to meet the required annual reductions from Existing Source Loads in accordance with the schedule outlined in Table 5.

Table 5: Loudoun County Implementation Schedule for Meeting Existing Source Load Reductions

Means and Methods	FY2014	FY2015	FY2016	FY2017	FY2018
Plan Set Review and Quantification of Reductions from a More Stringent ALCC Based on 16% IC	X	X			
Land Use Conversion on County Owned Properties—Loudoun County Solid Waste Management Facility		X	X		
FY2013 SLAF Project-Gwen Thompson Briar Patch Park					
Design	X	X			
Construction		X	X		
Inspection / Verification				X	X
FY2014 SLAF Project-Loudoun Valley Estates, Section III					
Design		X	X		
Construction			X	X	
Inspection / Verification					X

In order to comply with this schedule, the County will adhere to the following milestones:

- The County has completed its Plan Set Review and Quantification of New Source stormwater management facilities.
- The County will complete design of the Briar Patch Park retrofit design prior to FY2016.
- The County will complete installation of the Briar Patch Park retrofit design prior to FY2017, weather permitting.
- The County will complete design of the Loudoun Valley Estates, Section III retrofit design prior to FY2017.
- The County will complete installation of the Loudoun Valley Estates, Section III retrofit design prior to FY2018, weather permitting.

In addition to the proposed schedule and milestones, the County will continue to require and track additional reductions to annual Existing Source Loads resulting from enforcement of its VSMP program on prior developed lands. As the County cannot predict when private development may occur on prior developed lands, the County cannot use associated reductions to develop a compliant schedule. However, as redevelopment on prior developed lands occurs, the County will apply the associated POC load reductions towards meeting its overall reductions to Existing Source loads.

Chapter 6: Means and Methods to Offset Increased Loads from New Sources Initiating Construction between July 1, 2009 and June 30, 2014

As the County reviewed plan sets for projects initiating construction between July 1, 2009 and June 30, 2014 to identify designs that resulted in over-treatment because of oversized BMPs, it also identified 34 projects where the design resulted in under-treatment, when compared to the standard of the ALCC of 16% IC. Where the County determined that the design led to under-treatment, the County calculated the associated phosphorous removal rates. The County then developed the corresponding nitrogen and sediment reductions utilizing DEQ Guidance Memo No. 15-2005. These projects, as well as the associated annual under-treatment of the POC based on a 16% ALCC, are included in Appendix 6.

In order to address the identified under-treatment, the County subtracted 521.9 lbs./yr. of nitrogen, 189 lbs./yr. of phosphorus and 101,773.0 lbs./yr. of sediment from the over-treatment surplus identified by the County for application towards its required reductions from Existing Sources. The annual POC treatment deficits for all projects were removed from the surplus; thereby, offsetting 100% of the increased loads from New Sources that initiated construction between July 1, 2009 and June 30, 2014.

Chapter 7: Means and Methods to Offset Increased Loads from Grandfathered Projects that begin Construction after July 1, 2014

In order to be considered a grandfathered project, a land disturbing activity must not have obtained coverage under the Virginia General Permit for Stormwater from Construction Activities or begun land disturbance prior to July 1, 2014 while meeting the following criteria prior to July 1, 2012:

- The County must have approved a proffered or conditional zoning plan, zoning with a plan of development, preliminary or final subdivision plat, preliminary or final site plan, or any document determined by the locality to be equivalent.
- The approved document must have provided a layout as defined in 9VAC25-870-10.
- The approved document would demonstrate compliance with the Part II C technical criteria (9VAC25-870-96).

In order for a County project to be considered grandfathered, the County must have obligated full or partial funding for the project or approved a stormwater management plan prior to July 1, 2012; however, the project had not obtained coverage under the Virginia General Permit for Stormwater from Construction Activities or begun land disturbance prior to July 1, 2014. Finally, County projects, where funding was obligated from governmental bonding or public debt financing prior to July 1, 2012, is considered grandfathered.

The County has determined that zero (0) projects meet the requirements necessary to be considered grandfathered.

Chapter 8: List of Future Projects, and Associated Acreage, that Qualify as Grandfathered

Upon review, the County has determined that there are 0 grandfathered projects, totaling 0.00 acres, applicable under the VSMP grandfathering regulations.

Chapter 9: Estimate of the Expected Cost to Implement the Necessary Reductions

The County estimates that it will cost \$1,221,449.00, including \$471,250.00 in SLAF funding, to meet the Existing Source reductions as identified in this TMDL Action Plan.

As the County has identified and accounted for 100% of the required reductions from new projects that began land disturbance between July 1, 2009 and June 30, 2014 and designed water quality controls based on a criteria greater than an ALCC of 16% IC, the County assumes \$0.00 additional expenses. As the County has identified no future projects that qualify as grandfathered, the County assumes \$0.00 additional expenses. A detailed breakdown of the expected costs to achieve the 5% reductions from existing sources is found in Table 7.

Table 7: Loudoun County Estimated Costs for Meeting Existing Source Load Reductions

Expense	Type of Source Load	Capital Construction/ Development Costs	Matching VA SLAF Grant	Permit Cycle O& M Costs	Total Costs
Plan Set Review for Pollutant Reductions from More Stringent ALCC Based on 16% IC	Existing Source Loads	--	--	\$114,970.00	\$ 114,970.00
FY2013 SLAF Project	Existing Source Loads	\$ 194,250.00	\$194,250.00	\$31,080.00 ³	\$ 481,740.00
FY2014 SLAF Project	Existing Source Loads	\$ 277,000.00	\$ 277,000.00	\$22,160.00 ⁴	\$ 620,480.00
Land Use Conversion at the County Solid Waste Management facility	Existing Source Loads	\$ 42,592.00	--	--	\$ 42,592.00
Total Cost Chesapeake Bay TMDL Action Plan Existing Cost Estimates					\$ 1,221,449.00

³ EPA Best Management Practices: Wet Ponds <http://water.epa.gov/polwaste/npdes/swbmp/Wet-Ponds.cfm> (Maintenance 3-5% of construction costs annually [4%] for two years)

⁴ EPA Best Management Practices: Wetlands <http://water.epa.gov/polwaste/npdes/swbmp/Stormwater-Wetland.cfm> (Maintenance 3-5% of construction costs annually [4%] for one year)

Chapter 10: Public Comments on the Draft TMDL Action Plan

The County provided a 30-day public comment period in which it encouraged review and submission of public comments on the draft TMDL Action Plan. The received comments are included in Appendix 7.

Chapter 11: Annual Reporting Requirements and Future Steps

Loudoun County will include each of the following with its MS4 Annual Report associated with the current MS4 General Permit Cycle:

- A summary on the development and implementation of NMPs and its compliance with the MS4 General Permit milestones
- A summary on the implementation of the VESCP and its compliance with the MS4 General Permit
- A summary of the implementation of the VSMP and its compliance with the MS4 General Permit including and electronic list of
 - Stormwater management facilities implemented during the reporting period as part of new development for New Sources that includes the information required in Section II B 5 e of the MS4 General Permit
 - Stormwater management facilities implemented as part of development on previously developed land during the reporting period for Existing Sources that includes the information required in Section II B 5 e of the MS4 General Permit.
- A summary report on the implementation of the schedule and milestones for meeting the required Existing Source annual load reductions including:
 - A summary on the implementation of the Means and Methods, including the type of retrofit when applicable, identified in Chapter 5 and their cumulative progress towards meeting the required annual POC reductions identified in Table 6. For stormwater management facilities, the required information will also be included with the electronic list.
- A summary of the expected POC Means and Methods that will be implemented during the next permit year and their expected progress towards meeting the required annual POC reductions identified in Table 6.

Implementation of this TMDL Action Plan will result in sufficient implementation of Means and Methods to meet the compliance targets identified in the Special Condition.

Also submitted with the County's reapplication package will be the second phase of the TMDL Action Plan. The second phase of the TMDL Action Plan will include⁵:

- A list of Means and Methods, including an implementation schedule for the FY2019-FY2024 MS4 General Permit cycle, that will result in the reduction of annual POC loads from Existing Sources of:
 - 5,962 lbs. of nitrogen
 - 498 lbs. of phosphorus
 - 547,715 lbs. of sediment
- Calculation of the required reductions in annual POC loads from MS4 service acreage newly identified by the boundaries of the 2010 U.S. Census Urbanized Area as shown in Table 9.
- A list of Means and Methods, including an implementation schedule for the FY2019-FY2024 MS4 General Permit cycle that will result in the reduction of annual POC loads from the newly identified acreage.
- Incorporation of the excess POC reduction credits generated by implementation of this TMDL Action Plan.

The County took the proactive approach during this TMDL Action Plan and accounted for 100% of the undertreated projects that began construction between July 1, 2009 and June 30, 2014. As such, the County will not be required to address any additional offsets for these projects.

⁵ Contents of the next phase of the Loudoun County Chesapeake Bay TMDL Action Plan are based on the current General Permit. Future modifications to the TMDL and General Permit Reapplication requirements may modify the current expectations included in this TMDL Action Plan.

Table 9: Loudoun County MS4 Estimated Potomac River Pollutant Reductions from Existing Sources Required During Second Phase of Chesapeake Bay TMDL Action Plan for Newly Regulated Lands Included in the 2010 U.S. Census Bureau Urbanized Area

Sub-source	Pollutant	Total New Existing Acres Served by MS4 as of 6/30/09 in 2010 UA	Second Permit Cycle Required Reduction in Loading Rate (lbs./ac)	Total Reduction Required Second Permit Cycle (lbs.)	Total Reduction Required Second Permit Cycle (lbs.)
Regulated Urban Impervious	Nitrogen	TBD	0.64		
Regulated Urban Pervious		TBD	0.24		
Regulated Urban Impervious	Phosphorus	TBD	0.08		
Regulated Urban Pervious		TBD	0.008		
Regulated Urban Impervious	Total Suspended Solids	TBD	93.58		
Regulated Urban Pervious		TBD	6.16		

Glossary

"Existing Sources" means pervious and impervious urban land uses served by the MS4 as of June 30, 2009.

"Land disturbance" or "land-disturbing activity" means a manmade change to the land surface that potentially changes its runoff characteristics including clearing, grading, or excavation, except that the term shall not include those exemptions specified in § 62.1-44.15:34 of the Code of Virginia.

"New Sources" means pervious and impervious urban land uses served by the MS4 developed or redeveloped on or after July 1, 2009.

"Pollutants of concern" or "POC" means total nitrogen, total phosphorus, and total suspended solids.

"Transitional Sources" means regulated land disturbing activities that are temporary in nature and discharge through the MS4.

Appendix 1: Virginia General Permit for Discharges of Stormwater from Small MS4s Special Condition for the Chesapeake Bay

C. Special condition for the Chesapeake Bay TMDL. The Commonwealth in its Phase I and Phase II Chesapeake Bay TMDL Watershed Implementation Plans (WIP) committed to a phased approach for MS4s, affording MS4 operators up to three full five-year permit cycles to implement necessary reductions. This permit is consistent with the Chesapeake Bay TMDL and the Virginia Phase I and II WIPs to meet the Level 2 (L2) scoping run for existing developed lands as it represents an implementation of 5.0% of L2 as specified in the 2010 Phase I WIP. Conditions of future permits will be consistent with the TMDL or WIP conditions in place at the time of permit issuance.

1. Definitions. The following definitions apply to this state permit for the purpose of the special condition for discharges in the Chesapeake Bay Watershed:

"Existing sources" means pervious and impervious urban land uses served by the MS4 as of June 30, 2009.

"New sources" means pervious and impervious urban land uses served by the MS4 developed or redeveloped on or after July 1, 2009.

"Pollutants of concern" or "POC" means total nitrogen, total phosphorus, and total suspended solids.

"Transitional sources" means regulated land disturbing activities that are temporary in nature and discharge through the MS4.

2. Chesapeake Bay TMDL planning.

a. In accordance with Table 1, the operator shall develop and submit to the department for its review and acceptance an approvable Chesapeake Bay TMDL Action Plan. Unless specifically denied in writing by the department, this plan becomes effective and enforceable 90 days after the date received by the department. The plan shall include:

(1) A review of the current MS4 program implemented as a requirement of this state permit including a review of the existing legal authorities and the operator's ability to ensure compliance with this special condition;

(2) The identification of any new or modified legal authorities such as ordinances, state and other permits, orders, specific contract language, and interjurisdictional agreements implemented or needing to be implemented to meet the requirements of this special condition;

(3) The means and methods that will be utilized to address discharges into the MS4 from new sources;

(4) An estimate of the annual POC loads discharged from the existing sources as of June 30, 2009, based on the 2009 progress run. The operator shall utilize the applicable versions of Tables 2 a-d in this section based on the river basin to which the MS4 discharges by multiplying the total existing acres served by the MS4 on June 30, 2009, and the 2009 Edge of Stream (EOS) loading rate:

Table 2 a: Calculation Sheet for Estimating Existing Source Loads for the James River Basin *Based on Chesapeake Bay Program Watershed Model Phase 5.3.2				
Subsource	Pollutant	Total Existing Acres Served by MS4 (6/30/09)	2009 EOS Loading Rate (lbs./ac)	Estimated Total POC Load Based on 2009 Progress Run
Regulated Urban Impervious	Nitrogen		9.39	
Regulated Urban Pervious			6.99	
Regulated Urban Impervious	Phosphorus		1.76	
Regulated Urban Pervious			0.5	
Regulated Urban Impervious	Total Suspended Solids		676.94	
Regulated Urban Pervious			101.08	

Table 2 b: Calculation Sheet for Estimating Existing Source Loads for the Potomac River Basin *Based on Chesapeake Bay Program Watershed Model Phase 5.3.2				
Subsource	Pollutant	Total Existing Acres Served by MS4 (6/30/09)	2009 EOS Loading Rate (lbs./ac)	Estimated Total POC Load Based on 2009 Progress Run
Regulated Urban Impervious	Nitrogen		16.86	
Regulated Urban Pervious			10.07	
Regulated Urban Impervious	Phosphorus		1.62	
Regulated Urban Pervious			0.41	
Regulated Urban Impervious	Total Suspended Solids		1,171.32	
Regulated Urban Pervious			175.8	

Table 2 c: Calculation Sheet for Estimating Existing Source Loads for the Rappahannock River Basin *Based on Chesapeake Bay Program Watershed Model Phase 5.3.2				
Subsource	Pollutant	Total Existing Acres Served by MS4 (6/30/09)	2009 EOS Loading Rate (lbs./ac)	Estimated Total POC Load Based on 2009 Progress Run
Regulated Urban Impervious	Nitrogen		9.38	
Regulated Urban Pervious			5.34	
Regulated Urban Impervious	Phosphorus		1.41	
Regulated Urban Pervious			0.38	
Regulated Urban Impervious	Total Suspended Solids		423.97	
Regulated Urban Pervious			56.01	

Table 2 d: Calculation Sheet for Estimating Existing Source Loads for the York River Basin *Based on Chesapeake Bay Program Watershed Model Phase 5.3.2				
Subsource	Pollutant	Total Existing Acres Served by MS4 (6/30/09)	2009 EOS Loading Rate (lbs./ac)	Estimated Total POC Load Based on 2009 Progress Run
Regulated Urban Impervious	Nitrogen		7.31	
Regulated Urban Pervious			7.65	
Regulated Urban Impervious	Phosphorus		1.51	
Regulated Urban Pervious			0.51	
Regulated Urban Impervious	Total Suspended Solids		456.68	
Regulated Urban Pervious			72.78	

(5) A determination of the total pollutant load reductions necessary to reduce the annual POC loads from existing sources utilizing the applicable versions of Tables 3 a-d in this section based on the river basin to which the MS4 discharges. This shall be calculated by multiplying the total existing acres served by the MS4 by the first permit cycle required reduction in loading rate. For the purposes of this determination, the operator shall utilize those existing acres identified by the 2000 U.S. Census Bureau urbanized area and served by the MS4.

Table 3 a: Calculation Sheet for Determining Total POC Reductions Required During this Permit Cycle for the James River Basin *Based on Chesapeake Bay Program Watershed Model Phase 5.3.2				
Subsource	Pollutant	Total Existing Acres Served by MS4 (6/30/09)	First Permit Cycle Required Reduction in Loading Rate (lbs./ac)	Total Reduction Required First Permit Cycle (lbs.)
Regulated Urban Impervious	Nitrogen		0.04	
Regulated Urban Pervious			0.02	
Regulated Urban Impervious	Phosphorus		0.01	
Regulated Urban Pervious			0.002	
Regulated Urban Impervious	Total Suspended Solids		6.67	
Regulated Urban Pervious			0.44	

Table 3 b: Calculation Sheet for Determining Total POC Reductions Required During this Permit Cycle for the Potomac River Basin *Based on Chesapeake Bay Program Watershed Model Phase 5.3.2				
Subsource	Pollutant	Total Existing Acres Served by MS4 (6/30/09)	First Permit Cycle Required Reduction in Loading Rate (lbs./ac)	Total Reduction Required First Permit Cycle (lbs.)
Regulated Urban Impervious	Nitrogen		0.08	
Regulated Urban Pervious			0.03	
Regulated Urban Impervious	Phosphorus		0.01	
Regulated Urban Pervious			0.001	
Regulated Urban Impervious	Total Suspended Solids		11.71	
Regulated Urban Pervious			0.77	

Table 3 c: Calculation Sheet for Determining Total POC Reductions Required During this Permit Cycle for the Rappahannock River Basin *Based on Chesapeake Bay Program Watershed Model Phase 5.3.2				
Subsource	Pollutant	Total Existing Acres Served by MS4 (6/30/09)	First Permit Cycle Required Reduction in Loading Rate (lbs./acre)	Total Reduction Required First Permit Cycle (lbs.)
Regulated Urban Impervious	Nitrogen		0.04	
Regulated Urban Pervious			0.02	
Regulated Urban Impervious	Phosphorus		0.01	
Regulated Urban Pervious			0.002	
Regulated Urban Impervious	Total Suspended Solids		4.24	
Regulated Urban Pervious			0.25	

Table 3 d: Calculation Sheet for Determining Total POC Reductions Required During this Permit Cycle for the York River Basin *Based on Chesapeake Bay Program Watershed Model Phase 5.3.2				
Subsource	Pollutant	Total Existing Acres Served by MS4 (6/30/09)	First Permit Cycle Required Reduction in Loading Rate (lbs./acre)	Total Reduction Required First Permit Cycle (lbs.)
Regulated Urban Impervious	Nitrogen		0.03	
Regulated Urban Pervious			0.02	
Regulated Urban Impervious	Phosphorus		0.01	
Regulated Urban Pervious			0.002	
Regulated Urban Impervious	Total Suspended Solids		4.60	
Regulated Urban Pervious			0.32	

(6) The means and methods, such as management practices and retrofit programs that will be utilized to meet the required reductions included in subdivision 2 a (5) of this subsection, and a schedule to achieve those reductions. The schedule should include annual benchmarks to demonstrate the ongoing progress in meeting those reductions;

(7) The means and methods to offset the increased loads from new sources initiating construction between July 1, 2009, and June 30, 2014, that disturb one acre or greater as a result of the utilization of an average land cover condition greater than 16% impervious cover for the design of post-development stormwater management facilities. The operator shall utilize Table 4 to develop the equivalent pollutant load for nitrogen and total suspended solids. The operator shall offset 5.0% of the calculated increased load from these new sources during the permit cycle.

(8) The means and methods to offset the increased loads from projects as grandfathered in accordance with 9VAC25-870-48, that disturb one acre or greater that begin construction after July 1, 2014, where the project

utilizes an average land cover condition greater than 16% impervious cover in the design of post-development stormwater management facilities. The operator shall utilize Table 4 to develop the equivalent pollutant load for nitrogen and total suspended solids.

(9) The operator shall address any modification to the TMDL or watershed implementation plan that occurs during the term of this state permit as part of its permit reapplication and not during the term of this state permit.

Table 4: Ratio of Phosphorus Loading Rate to Nitrogen and Total Suspended Solids Loading Rates for Chesapeake Bay Basins			
Ratio of Phosphorus to Other POCs (Based on All Land Uses 2009 Progress Run)	Phosphorus Loading Rate (lbs./acre)	Nitrogen Loading Rate (lbs./acre)	Total Suspended Solids Loading Rate (lbs./acre)
James River Basin	1.0	5.2	420.9
Potomac River Basin	1.0	6.9	469.2
Rappahannock River Basin	1.0	6.7	320.9
York River Basin	1.0	9.5	531.6

(10) A list of future projects and associated acreage that qualify as grandfathered in accordance with 9VAC25-870-48;

(11) An estimate of the expected costs to implement the requirements of this special condition during the state permit cycle; and

(12) An opportunity for receipt and consideration of public comment regarding the draft Chesapeake Bay TMDL Action Plan.

b. As part of development of the Chesapeake Bay TMDL Action Plan, the operator may consider:

(1) Implementation of BMPs on unregulated lands provided any necessary baseline reduction is not included toward meeting the required reduction in this permit;

(2) Utilization of stream restoration projects, provided that the credit applied to the required POC load reduction is prorated based on the ratio of regulated urban acres to total drainage acres upstream of the restored area;

(3) Establishment of a memorandum of understanding (MOU) with other MS4 operators that discharge to the same or adjacent eight digit hydrologic unit within the same basin to implement BMPs collectively. The MOU shall include a mechanism for dividing the POC reductions created by BMP implementation between the cooperative MS4s;

(4) Utilization of any pollutant trading or offset program in accordance with §§ 62.1-44.19:20 through 62.1-44.19:23 of the Code of Virginia, governing trading and offsetting;

(5) A more stringent average land cover condition based on less than 16% impervious cover for new sources initiating construction between July 1, 2009, and June 30, 2014, and all grandfathered projects where allowed by law; and

(6) Any BMPs installed after June 30, 2009, as part of a retrofit program may be applied towards meeting the required load reductions provided any necessary baseline reductions are not included.

3. Chesapeake Bay TMDL Action Plan implementation. The operator shall implement the TMDL Action Plan according to the schedule therein. Compliance with this requirement represents adequate progress for this state

permit term towards achieving TMDL wasteload allocations consistent with the assumptions and requirements of the TMDL. For the purposes of this permit, the implementation of the following represents implementation to the maximum extent practicable and demonstrates adequate progress:

- a. Implementation of nutrient management plans in accordance with the schedule identified in the minimum control measure in Section II related to pollution prevention/good housekeeping for municipal operations ;
- b. Implementation of the minimum control measure in Section II related to construction site stormwater runoff control in accordance with this state permit shall address discharges from transitional sources;
- c. Implementation of the means and methods to address discharges from new sources in accordance with the minimum control measure in Section II related to post-construction stormwater management in new development and development of prior developed lands and in order to offset 5.0% of the total increase in POC loads between July 1, 2009, and June 30, 2014. Increases in the POC load from grandfathered projects initiating construction after July 1, 2014, must be offset prior to completion of the project; and
- d. Implementation of means and methods sufficient to meet the required reductions of POC loads from existing sources in accordance with the Chesapeake Bay TMDL Action Plan.

4. Annual reporting requirements.

- a. In accordance with Table 1, the operator shall submit the Chesapeake Bay Action Plan with the appropriate annual report.
- b. Each subsequent annual report shall include a list of control measures implemented during the reporting period and the cumulative progress toward meeting the compliance targets for nitrogen, phosphorus, and total suspended solids.
- c. Each subsequent annual report shall include a list of control measures, in an electronic format provided by the department, that were implemented during the reporting cycle and the estimated reduction achieved by the control. For stormwater management controls, the report shall include the information required in Section II B 5 e and shall include whether an existing stormwater management control was retrofitted, and if so, the existing stormwater management control type retrofit used.
- d. Each annual report shall include a list of control measures that are expected to be implemented during the next reporting period and the expected progress toward meeting the compliance targets for nitrogen, phosphorus, and total suspended solids.

5. The operator shall include the following as part of its reapplication package due in accordance with Section III M:

- a. Documentation that sufficient control measures have been implemented to meet the compliance target identified in this special condition. If temporary credits or offsets have been purchased in order to meet the compliance target, the list of temporary reductions utilized to meet the required reduction in this state permit and a schedule of implementation to ensure the permanent reduction must be provided; and
- b. A draft second phase Chesapeake Bay TMDL Action Plan designed to reduce the existing pollutant load as follows:
 - (1) The existing pollutant of concern loads by an additional seven times the required reductions in loading rates using the applicable Table 3 for sources included in the 2000 U.S. Census Bureau urbanized areas;
 - (2) The existing pollutant of concerns loads by an additional eight times the required reductions in loading rates using the applicable Table 3 for expanded sources identified in the U.S. Census Bureau 2010 urbanized areas;

(3) An additional 35% reduction in new sources developed between 2009 and 2014 and for which the land use cover condition was greater than 16%; and

(4) Accounts for any modifications to the applicable loading rate provided to the operator as a result of TMDL modification.

Appendix 2: Briar Patch Park Stormwater Local Assistance Fund (SLAF) Grant Application

DEPARTMENT OF ENVIRONMENTAL QUALITY - WATER DIVISION
APPLICATION FOR STORMWATER LOCAL ASSISTANCE FUND (SLAF)
STORMWATER CAPITAL PROJECTS

SECTION A - ORGANIZATIONAL DATA

Name of Applicant:	Loudoun County		
Applicant Address:	801 Sycolin Road SE, Suite 300 Leesburg, VA 20175		
Contact Person:	Randy Williford		
Phone:	703-737-8686	Email:	Randy.Williford@loudoun.gov
Name of Engineer:	URS Corporation		
Engineer Address:	13825 Sunrise Valley Drive, Suite 250 Herndon, VA 20171		
Contact Person:	Jennifer Solakian		
Phone:	703-713-6415	Email:	Jennifer.Solakian@urs.com

SECTION B - PROPOSED FUNDING

PROJECT FUNDING

a) Amount of SLAF Grant Funds Requested	194,250																
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 5%;"></th><th style="width: 65%;">Source of Match Funds</th><th style="width: 15%;">Amount</th><th style="width: 15%;">CHECK BOX IF COMMITTED</th></tr></thead><tbody><tr><td style="text-align: center;">1</td><td>Loudoun County Storm Water Management Capital Improvement Project</td><td style="text-align: right;">194,250</td><td style="text-align: center;">✓</td></tr><tr><td style="text-align: center;">2</td><td></td><td></td><td></td></tr><tr><td style="text-align: center;">3</td><td></td><td></td><td></td></tr></tbody></table>			Source of Match Funds	Amount	CHECK BOX IF COMMITTED	1	Loudoun County Storm Water Management Capital Improvement Project	194,250	✓	2				3			
	Source of Match Funds	Amount	CHECK BOX IF COMMITTED														
1	Loudoun County Storm Water Management Capital Improvement Project	194,250	✓														
2																	
3																	
b) Total Other Funding Available (1 + 2 + 3 ...)**	194,250																
c) Total Project Cost (a + b)	388,500																

*SLAF Grants provide up to 50% of project costs. Applicant must identify anticipated source(s) and amount(s) of match funds.

**This amount must be at least equal to the amount of Grant Funds being requested.

SECTION C – WATER QUALITY DATA

Location of Project	Latitude	39.017 N	Longitude	77.388 W
(Latitude and Longitude of project is a required entry on this application. The points should be the nearest approximation of the center of your project. Please identify them in decimal degrees.)				
Name of Stream / Waterbody impacted by stormwater runoff being addressed by the project				
Unnamed tributary to Sugarland Run				
River Basin for Receiving Stream / Waterbody				
Potomac River--Chesapeake Bay				

SECTION D -BRIEF PROJECT DESCRIPTION AND STATEMENT OF NEED

Please include a description of project including: type of project (e.g. extended detention pond retrofit), size of area treated (acres), TMDL or impaired water the project addresses, if the project is relevant to a TMDL Implementation Plan, and other relevant information pertaining to the project. Describe the need for the proposed project. Needs should be in areas of restoring, protecting or preventing pollution in State waters. (attach additional pages if necessary)

The project consists of a constructed wetland and a small bioretention basin located within a County park. The park lies in a generally residential area that was built in the 1950's and 1960's without concern for stormwater management. 80 acres of land will drain to the project which will double as an aesthetic and educational feature with boardwalks and interpretive signage. Community meetings, providing for public participation, will be a part the design phase.

Water from this project will drain to an unnamed tributary of Sugarland Run, a bacterially impaired stream with a newly created TMDL. Sugarland Run then flows to the Potomac River and on to the Chesapeake Bay. The project will be part of the Chesapeake Bay TMDL Action Plan for the Loudoun County MS4 and will remove 42.48 pounds of phosphorus, 124.85 pounds of nitrogen, and a significant but as yet uncalculated amount of sediment annually.

SECTION E - POLLUTION REDUCTION

The calculated Total Pounds (Per Year) of Total Phosphorous reduced from stormwater as a result of this project

= pounds per year

The established methodology for calculating the TP reduction is outlined in Attachment A of the SLAF Guidelines. To verify calculations for pollution reduction, the following information is required with the application:

- 1) Print out the Site Data tab of the Virginia Runoff Reduction Method Spreadsheet showing the data entered and resultant TP load. Supporting documentation with rational for parameter selection must be provided to demonstrate that the parameter estimates are valid for the project.
- 2) Provide Text to indicate which pollution reduction calculation methodology was selected, why it is appropriate for the project, the calculated phosphorus load reduction, any assumptions with supporting documentation, and parameters selected with rationale for selection (must be provided to demonstrate that the estimates are valid for the project). All supporting calculations must be provided.
- 3) If the project is a retrofit of an existing BMP provide photographs showing the BMP before the upgrade. Provide text to describe the upgrade / enhancement and the incremental phosphorus load reduction achieved utilizing the SLAF guideline references, with supporting documentation. Rationale and calculated estimates for BMP's current (former) efficiency must be provided.

SECTION F - READINESS-TO-PROCEED

PROJECT STATUS

	Yes	No	N/A
Is the project included in Stormwater or Watershed Management Plan? (If Yes, attach documentation to application)		✓	
Is the project identified in current year Capital Improvement Plan or Annual Budget? (If Yes, attach documentation to application)	✓		
Is acquisition of land necessary to complete project?		✓	
Has the land necessary for the project already been acquired? (If Yes, attach documentation to application)			✓
Has an engineer been selected for project design? (If Yes, provide name)	✓		

ANTICIPATED SCHEDULE

	<i>Schedule Item Description</i>	<i>Date</i>
a.	Notice to Proceed on Design	December 1, 2013
b.	Completion of Plans/Specifications	March 15, 2014
c.	Plans and Specs Approved	April 15, 2014
d.	Advertise for Bids Contractors are pre-selected	N/A
e.	Bid Opening	N/A
f.	Award Contracts	May 15, 2014
g.	Estimated Construction Time (expressed in months)	3

SECTION G -PROJECT BUDGET INFORMATION

Legal / Administration	\$0.00
Land, Right-of-Way	\$0.00
Architectural Engineering Basic Fees	\$78500.00
Project Inspection Fees	\$8500.00
Other (Explain) Cost of public meeting process	\$11500.00
Stormwater BMP Construction	245,000
Contingencies	\$45000.00
TOTAL*	388,500 *

*This amount should be the exact same as the amount in Item c) Total Project Cost, Section B, Page 1.

SECTION H

	Yes	No	N/A
Has applicant adopted a dedicated source of revenue to implement a stormwater control program in accordance with §15.2-2114? (If so, attach documentation)	✓		
Is the applicant subject to an MS4 discharge permit in accordance with §62.1-44.5?	✓		
Does the project address requirements of your MS4 permit? If yes, explain:	✓		
<p>This project will be part of the Chesapeake Bay TMDL Action Plan which requires a phosphorus reduction of 5% of overall targets to be reached by the end of the MS4 permit period.</p>			

Name of MS4 Permittee if different from Applicant

SECTION I - ASSURANCES AND CERTIFICATIONS

The undersigned representative of the applicant certifies that the information contained herein and the attached statements and exhibits are true, correct and complete to the best of their knowledge and belief. The undersigned also agrees to clarify or supplement information pertaining to this application upon request.

Name:

Title:

Signature:

Date:

SECTION J - ATTACHMENTS

Include all required attachments appropriate for your application. The following is a list of potential attachments:

- 1) Documentation supporting the Pollution Reduction methodology, calculations, text, etc. as described in Section E.
- 2) Excerpt from Stormwater or Watershed Management Plan. (Section F)
- 3) Excerpt from Capital Improvement Plan or Annual Budget. (Section F)
- 4) Documentation of land acquisition. (Section F)
- 5) Documentation of Dedicated Revenue Source for Stormwater Management Program. (Section H)

Appendix 3: Loudoun Valley Estates Stormwater Local Assistance Fund (SLAF) Grant Application

Grant Application Summary Form

Basic Information

Name of grant: Stormwater Local Assistance Fund Dept. name: General Services

Dept. Head signature: [Signature] Date: 10-22-2014

Name of grant program manager/staff contact: Randy Williford Ext. 8686

Amount of grant funding: \$277,000 Grant application due by: 10 / 24 / 2014

Grantor: ☒ State ☐ Federal Grant Type: ☒ New ☐ Continuation

Local match required?: ☒ yes ☐ no Type and amount of local match: \$277,000 (50% match) cash ☐ in-kind

Describe the authorized uses of funds: (Salary & benefits, Supplies, Contractual Services Travel, Other) Any reasonable and necessary costs associated with a stormwater management project, including all associated planning, design, and construction costs. Ineligible costs include salaries and other expenses of municipal employees, administrative costs such as supplies, rent, grant administration, and travel, maintenance, and interest on borrowed funds.

Local match funds available in existing department appropriations: ☒ yes, index code C00003 ☐ no

Does this grant involve the receipt or purchase of equipment? ☐ yes ☒ no

If so, briefly describe: _____

Grant time period: Duration of Construction to _____

Are there any provisions to renew beyond this time period? ☐ yes ☒ no

If yes, what are they and how will they be funded? _____

Are there any special conditions or provisions related to "maintenance of effort" (conditions or provisions that require the County to maintain this program after grantor funding is no longer available)? ☐ yes ☒ no

If yes, what are they? _____

Are there any other special conditions or provisions? ☐ yes ☒ no

If yes, what are they? _____

of FTE funded through the grant: 0 Preliminary job classifications: _____

Grant Program Information

Brief narrative of program to be provided using grant funds: This grant is for a stormwater capital project in support of the Municipal Separate Storm Sewer System (MS4) discharge permit.

Is this grant an expansion of an existing program, if so what index codes are associated? C00003

If this is a new grant, identify the program code/ user code where the new index codes will be setup. _____

How does this program fit in the context of your department's management plan? This stormwater capital project and other similar projects are anticipated as part of the Storm Water Management capital project in the CIP

Is this (or a similar) program provided by any other County or school agency? ☐ yes ☒ no

Impact on and Need for Resources

How will the grant program manager's workload be affected by this grant? No effect. This project will simply replace a previously planned project.

What staff in other departments will be needed to implement or support this program? None

Have you contacted those departments to discuss this grant? _____ yes _____ no

Is your existing office space sufficient to accommodate the new staff? N/A yes _____ no

Will additional office space be needed? _____ yes X no

If yes, how much office space? _____

Will you need any reconfiguration of existing office space? _____ yes X no

Will any new or additional systems furniture be needed: _____ yes X no

Will a County vehicle be needed: _____ yes X no If yes, how often? _____

What new or additional office equipment or furniture is needed? N/A

How many new telephones and/or phone lines are needed? N/A

What additional computer hardware or software will be needed? N/A

Will the hardware or software be supplied through the grant? N/A yes _____ no

If yes, will the hardware/software be updated/replaced (using grant funds) as needed or required? _____ yes _____ no

Will any reconfiguration of existing computer hardware be needed? _____ yes X no

Will any of the following be needed:

Mainframe access?	_____ yes	<u>X</u> no
E-mail?	_____ yes	<u>X</u> no
Voicemail?	_____ yes	<u>X</u> no

Do not write in this space

Budget Analyst Recommendation: _____ approve _____ disapprove

Budget Analyst Comments: _____

Budget Analyst Signature: _____ Date: _____

Grants Analyst Recommendation: _____ approve _____ disapprove

Grants Analyst Comments: _____

Grants Analyst Signature: _____ Date: _____

County Administrator Decision: _____ approve _____ disapprove

County Administrator Signature: _____ Date: _____

DEPARTMENT OF ENVIRONMENTAL QUALITY - WATER DIVISION
APPLICATION FOR STORMWATER LOCAL ASSISTANCE FUND (SLAF)
STORMWATER CAPITAL PROJECTS

SECTION A - ORGANIZATIONAL DATA

Name of Applicant:	Loudoun County		
Applicant Address:	801 Sycolin Road SE, Suite 300 Leesburg, VA 20175		
Contact Person:	Randy Williford		
Phone:	703-737-8686	Email:	Randy.Williford@loudoun.gov
Name of Engineer:	CPJ Associates		
Engineer Address:	3959 Pender Drive, Suite 210 Fairfax, VA 22030		
Contact Person:	James Fetchu		
Phone:	301-208-9573	Email:	jfetchu@cpja.com

SECTION B - PROPOSED FUNDING

PROJECT FUNDING

a) Amount of SLAF Grant Funds Requested	277,000																
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 5%;"></th><th style="width: 60%;">Source of Match Funds</th><th style="width: 20%;">Amount</th><th style="width: 15%;">CHECK BOX IF COMMITTED</th></tr></thead><tbody><tr><td style="text-align: center;">1</td><td>Loudoun County Storm Water Management Capital Improvement Project</td><td style="text-align: center;">277,000</td><td style="text-align: center;">✓</td></tr><tr><td style="text-align: center;">2</td><td></td><td></td><td></td></tr><tr><td style="text-align: center;">3</td><td></td><td></td><td></td></tr></tbody></table>			Source of Match Funds	Amount	CHECK BOX IF COMMITTED	1	Loudoun County Storm Water Management Capital Improvement Project	277,000	✓	2				3			
	Source of Match Funds	Amount	CHECK BOX IF COMMITTED														
1	Loudoun County Storm Water Management Capital Improvement Project	277,000	✓														
2																	
3																	
b) Total Other Funding Available (1 + 2 + 3 ...)**	277,000																
c) Total Project Cost (a + b)	554,000																

*SLAF Grants provide up to 50% of project costs. Applicant must identify anticipated source(s) and amount(s) of match funds.

**This amount must be at least equal to the amount of Grant Funds being requested.

SECTION C - WATER QUALITY DATA

Location of Project	Latitude	38.976 N	Longitude	77.494 W
(Latitude and Longitude of project is a required entry on this application. The points should be the nearest approximation of the center of your project. Please identify them in decimal degrees.)				
Name of Stream / Waterbody impacted by stormwater runoff being addressed by the project				
Unnamed tributary to Broad Run				
River Basin for Receiving Stream / Waterbody				
Potomac River—Chesapeake Bay				

SECTION D -BRIEF PROJECT DESCRIPTION AND STATEMENT OF NEED

Please include a description of project including: type of project (e.g. extended detention pond retrofit), size of area treated (acres), TMDL or impaired water the project addresses, if the project is relevant to a TMDL Implementation Plan, and other relevant information pertaining to the project. Describe the need for the proposed project. Needs should be in areas of restoring, protecting or preventing pollution in State waters.
(attach additional pages if necessary)

The project consists of converting an extended detention dry pond into a constructed wetlands. The pond is part of an existing residential development and it drains to an unnamed tributary about one-half mile from Broad Run. Broad Run is an impaired stream which drains to the Potomac River and then on to the Chesapeake Bay. About 75 acres drain to the project which will double as an aesthetic and educational feature with boardwalks and interpretive signage.

The project will be part of the Chesapeake Bay TMDL Action Plan for the Loudoun County MS4 and will remove 39.66 pounds of phosphorus.

SECTION E - POLLUTION REDUCTION

The calculated Total Pounds (Per Year) of Total Phosphorous reduced from stormwater as a result of this project

= pounds per year

The established methodology for calculating the TP reduction is outlined in Attachment A of the SLAF Guidelines. To verify calculations for pollution reduction, the following information is required with the application:

- 1) Print out the Site Data tab of the Virginia Runoff Reduction Method Spreadsheet showing the data entered and resultant TP load. Supporting documentation with rationale for parameter selection must be provided to demonstrate that the parameter estimates are valid for the project.
- 2) Provide Text to indicate which pollution reduction calculation methodology was selected, why it is appropriate for the project, the calculated phosphorus load reduction, any assumptions with supporting documentation, and parameters selected with rationale for selection (must be provided to demonstrate that the estimates are valid for the project). All supporting calculations must be provided.
- 3) If the project is a retrofit of an existing BMP provide photographs showing the BMP before the upgrade. Provide text to describe the upgrade / enhancement and the incremental phosphorus load reduction achieved utilizing the SLAF guideline references, with supporting documentation. Rationale and calculated estimates for BMP's current (former) efficiency must be provided.

SECTION F - READINESS-TO-PROCEED**PROJECT STATUS**

	Yes	No	N/A
Is the project included in Stormwater or Watershed Management Plan? (If Yes, attach documentation to application)	✓		
Is the project identified in current year Capital Improvement Plan or Annual Budget? (If Yes, attach documentation to application)	✓		
Is acquisition of land necessary to complete project?		✓	
Has the land necessary for the project already been acquired? (If Yes, attach documentation to application)			✓
Has an engineer been selected for project design? (If Yes, provide name)	✓		

ANTICIPATED SCHEDULE

	<i>Schedule Item Description</i>	<i>Date</i>
a.	Notice to Proceed on Design	December 1, 2014
b.	Completion of Plans/Specifications	March 30, 2015
c.	Plans and Specs Approved	June 1, 2015
d.	Advertise for Bids	Contractors are pre-selected
e.	Bid Opening	Contractors are pre-selected
f.	Award Contracts	August 3, 2015
g.	Estimated Construction Time (expressed in months)	4

SECTION G -PROJECT BUDGET INFORMATION

Legal / Administration	\$0.00
Land, Right-of-Way	\$0.00
Architectural Engineering Basic Fees	\$82000.00
Project Inspection Fees	\$12000.00
Other (Explain)	\$0.00
Stormwater BMP Construction	395,000
Contingencies	\$65000.00
TOTAL*	554,000 *

*This amount should be the exact same as the amount in Item c) Total Project Cost, Section B, Page 1.

SECTION H

	Yes	No	N/A
Has applicant adopted a dedicated source of revenue to implement a stormwater control program in accordance with §15.2-2114? (If so, attach documentation)	✓		
Is the applicant subject to an MS4 discharge permit in accordance with §62.1-44.5?	✓		
Does the project address requirements of your MS4 permit? If yes, explain:	✓		
 This project will contribute to required reductions for the Chesapeake TMDL Action PlanT			

Name of MS4 Permittee if different from Applicant

SECTION I - ASSURANCES AND CERTIFICATIONS

The undersigned representative of the applicant certifies that the information contained herein and the attached statements and exhibits are true, correct and complete to the best of their knowledge and belief. The undersigned also agrees to clarify or supplement information pertaining to this application upon request.

Name: Title:

Signature: _____ Date:

SECTION J - ATTACHMENTS

Include all required attachments appropriate for your application. The following is a list of potential attachments:

- 1) Documentation supporting the Pollution Reduction methodology, calculations, text, etc. as described in Section E.
- 2) Excerpt from Stormwater or Watershed Management Plan. (Section F)
- 3) Excerpt from Capital Improvement Plan or Annual Budget. (Section F)
- 4) Documentation of land acquisition. (Section F)
- 5) Documentation of Dedicated Revenue Source for Stormwater Management Program. (Section H)

**Appendix 4: Request for Quote (RFQ) C-2133 – Installation of Forestry
Planting at the Loudoun County Solid Waste Management Facility**



Loudoun County, Virginia

Request for Quotation

**INSTALLATION OF FORESTRY PLANTING AT THE LOUDOUN COUNTY
SOLID WASTE MANAGEMENT FACILITY**

ACCEPTANCE DATE: Prior to 5:00 p.m. April 24, 2015, Atomic Time

RFQ NUMBER: C-2133

ACCEPTANCE PLACE: Department of Management and Financial Services
Division of Procurement, MSC #41C
One Harrison Street, SE, 4th Floor
Leesburg, VA 20175

Requests for information related to this Invitation should be directed to:

Christopher Bresley, CPPB
Contracting Officer
(703) 777-0394
E-mail address: Christopher.Bresley@loudoun.gov
This document can be downloaded from our web site:
www.loudoun.gov/procurement

Issue Date: April 16, 2015

INSTALLATION OF FORESTRY PLANTING AT THE LOUDOUN COUNTY SOLID WASTE MANAGEMENT FACILITY

1.0 PURPOSE

The purpose of this Request for Quotation (RFQ) is to obtain firm fixed pricing from a qualified Contractor to provide installation of mixed native hardwood and evergreen trees at the Loudoun County Solid Waste Management Facility (LCSWMF). The planting area is approximately nine (9) acres, and the planting is intended to control erosion, control surface water infiltration and provide a visual and ecological buffer. LCSWMF is located at 21101 Evergreen Mills Road, Leesburg, Virginia 20175.

Planting Area: Tree planting will be conducted on an existing berm in the South East quadrant of the Solid Waste Management Facility. This site is characterized by steep slopes and heavy clay soil. Access is available along the foot of the berm. Site will be mowed prior to commencement of tree planting.



Figure 1.1 – Planting Area in Context of Solid Waste Management Facility



Figure 1.2 Planting Area Detail

2.0 SCOPE OF SERVICES

2.1 Procedure:

- A. Furnish and plant 3,960 hardwood seedlings and 2,160 Conifer seedlings as specified below.
- B. Furnish a tree-shelter, a treated oak stake and a bird net to be installed with each of the hardwood seedlings planted.
- C. Furnish and install a pin flag and a 10" x 10" sod scalp for each of the planted Conifer seedlings
- D. Coordinate with a planting crew to provide the labor to plant and install the seedlings and materials prior to May 15, 2015. Planting must be completed within ten (10) days of delivery barring severe weather conditions.

2.2 Specified Plant Material & Tree Protection:

Total Trees per acre: 680 = 8' x 8' overall spacing including Hardwoods and Conifers arranged randomly. The goal of the planting is to mimic the character of surrounding native forest; straight rows of trees is not acceptable.

A. Hardwood Planting:

- Hardwoods planted at a rate of 440 trees/acre (approximately 10' x 10' spacing)
- Hardwoods are assorted native species, depending on availability, including but not limited to species of: Quercus, Asimina, Acer, Robinia, Carya, Fagus, Platanus, Cercis, Diospyros, Castanopsis, Morus, and Betula. Final seedling selection must be approved by the County prior to planting.
- No one genus of trees may account for more than 1/5 of total seedlings planted.
- Trees will be planted as bare-root seedlings with:
 - 5' Tubex Standard tree shelter
 - Treated oak stake
 - Birdnet
 - Fertilizer/mycorrhizae tablet
- Trees shall be arranged randomly
- Stakes shall be installed on the northern side of the tree shelter

B. Conifer Planting:

- Pines planted at 240/acre (approximately 13.5' x 13.5' spacing) Interspersed randomly throughout planting area.
- Pines are Pinus virginiana and Pinus strobus
- Planted as bare-root stock
- Planted with a 10" x 10" scalp of the sod (removing 1 sq. ft. of sod around the planting site)
- Planted with fertilizer/mycorrhizae tablet

2.3 Seedling Care and Handling :

A. Before Planting:

Hardwood bare-root seedlings are perishable and require careful handling to prevent the roots from drying out. Bare-root seedlings are stored in controlled environments (33° to 40° F with 85 to 95 percent humidity) at tree nurseries until shipped or picked up. Seedlings from the nursery are packed in sphagnum moss or other types of moisture retaining material around the roots, bundled in packages, and placed in waterproof bags or boxes.

Transport seedlings (or arrange for delivery) to the planting site in a refrigerated truck. Seedling buds may break dormancy if the temperatures become too warm. Seedlings should be transported (or delivered) as close as possible to the date planting will actually begin. If refrigeration transport is

not possible, seedlings must be protected from sun, wind, and excessive drying.

In open truck beds, stack the bundles properly to allow adequate ventilation to prevent overheating, cover the bundles with a reflective, insulated tarpaulin, and leave sufficient air space between the tarpaulin and the seedlings (for air circulation) to reduce heat buildup. Seedlings should be unloaded as soon as they arrive to the planting site and kept in the shade at all times.

Seedlings should be planted as soon as possible (within 10 days of delivery). If they are not planted immediately, they need to be placed in cold storage (33° to 40°F) and protected. Storage in a barn, shed, or dense shade with protection from the sun (overheating), wind (drying out), and extreme temperatures (freezing) are adequate for a few days to a few weeks (only if temperatures are kept cool, 40°F). Stack bundles loosely with spacers (two bundles high) to permit adequate ventilation. Seedling roots need to be kept moist, but not wet, so a small amount of water may need to be added to the open end of the bundles.

B. During planting:

Proper care and handling of hardwood bare-root seedlings during the planting process is critical to seedling survival. Planting on cool, overcast days helps minimize seedling exposure to harsh, drying conditions. The seedling roots must be protected from drying out at all times. Only take as many seedlings as can be planted in one day from storage to the planting site. Seedlings should be removed from the nursery bundles and planted immediately, or transferred to a planting bag where the roots can be kept moist. Gently separate seedlings from the bundle, do not root prune, and keep lateral roots intact. The most important step during planting is protecting the roots. Cover seedling roots with moist burlap, peat moss, or a similar material to protect them from drying out; do not submerge root systems in buckets of water. Brief exposure of bare-root seedling roots to direct sunlight can cause dehydration and seedling death.

When planting, always hold the seedling by the shoot top, never by the roots. Planting will be carried out when the weather conditions are ideal (cool, above freezing temperatures, overcast day, adequate moisture).

When planting, proper planting methods must be followed, see Figure 2.1 Hardwood Seedlings and Figure 2.2 Conifer Seedlings for illustrated guidelines. Root collar should be at ground level, not buried, and roots not exposed. Roots must not be bent, pruned, planted in air pockets, or exposed to sunlight or wind before or during planting.

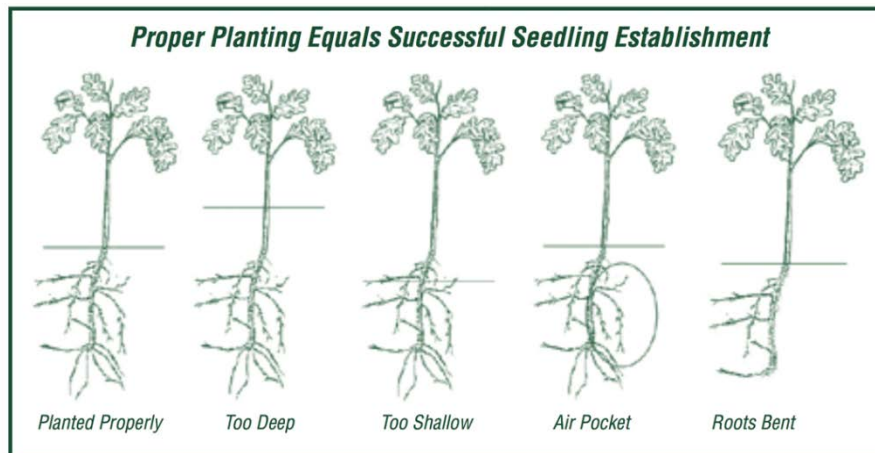


Figure 2.1 – Illustrated Planting Guidelines for Hardwood Seedlings

Acceptable Tree Diameters for Planting

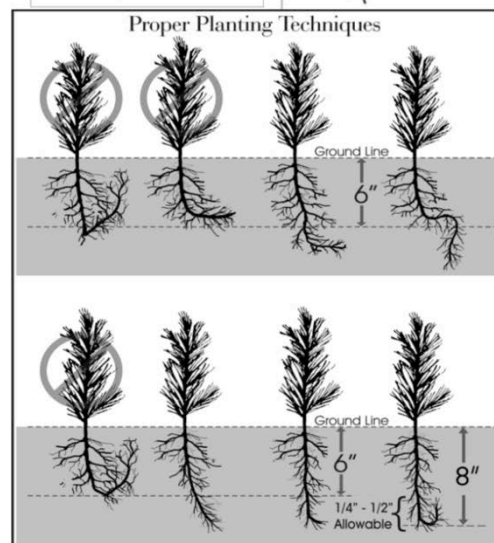
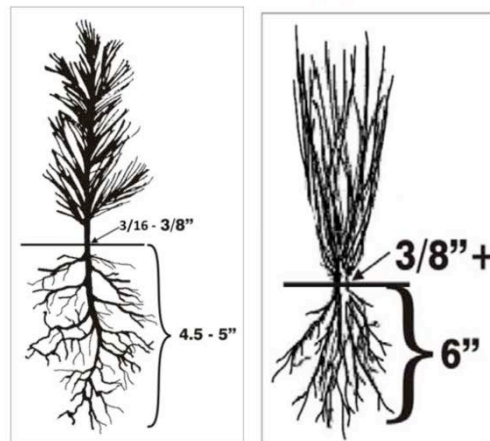


Figure 2.2 – Illustrated Planting Guidelines for Conifer Seedlings

2.4 References:

To be used by the Contractor during execution of the Scope of Services.

- Allen, J.A., B.D. Keeland, J.A. Stanturf, A.F. Clewell, and H.E. Kennedy, Jr. 2001. A guide to bottomland hardwood restoration. U.S. Geological Survey, Biological Resources Division Information and Technology Report USGS/BRD/ ITR-2000-0011, U.S. Department of Agriculture, Forest Service, Southern Research Station, General Technical Report SRS-40, 132p.
- Indiana Natural Resources Conservation Service (Indiana NRCS). 2002. Conservation Practice Standard, Tree / Shrub Establishment, Code 612. (http://www.ftw.nrcs.usda.gov/nhcp_2.html)
- North Central Research Station, USDA Forest Service Department of Forestry and Natural Resources, Purdue University. 2002. Planting Hardwood Seedlings in the Central Hardwood Region, Paula M. Pijut Code 612. (<https://www.extension.purdue.edu/extmedia/fnr/fnr-210.pdf>)
- The North Carolina Division of Forest Resources. 2014. NC Forest Service Seedling Planting Standards (<http://ncforestservice.gov/publications/NU0112.pdf>)

3.0 **TERMS AND CONDITIONS**

The Agreement for Service ("Agreement" or "Contract") with the successful vendor will contain the following Terms and Conditions. **These Terms and Conditions are not negotiable.**

3.1 Procedures

The extent and character of the services to be performed by the Contractor shall be subject to the general control and approval of the Landfill Operations Manager or his/her authorized representative(s). The Contractor shall not comply with requests and/or orders issued by other than the Landfill Operations Manager or his/her authorized representative(s) acting within their authority for the County. Any change to the Contract must be approved in writing by the Purchasing Agent and the Contractor.

3.2 Contract Completion

Planting of the 3,960 hardwood seedlings and 2,160 Conifer seedlings shall be completed by May 15, 2015

3.3 Quantities

The quantities specified in Section 2.0, Scope of Services are definite and will be the actual quantities purchased.

3.4 Delays and Delivery Failures

Time is of the essence. The Contractor must keep the County advised at all times of status of parties' agreement. If delay is foreseen, the Contractor shall give immediate written notice to the Purchasing Agent. Should the Contractor fail to deliver the proper item(s)/service(s) at the time and place(s) contracted for, or within a reasonable period of time thereafter as agreed to in writing by the Division of Procurement, or should the Contractor fail to make a timely replacement of rejected items/services when so required, the County may purchase items/services of comparable quality and quantity in the open market to replace the undelivered or rejected items/services. The Contractor shall reimburse the County for all costs in excess of the Agreement price when purchases are made in the open market; or, in the event that there is a balance the County owes to the Contractor from prior transactions, an amount equal to the

additional expense incurred by the County as a result of the Contractor's nonperformance shall be deducted from the balance as payment.

3.5 Material Safety Data Sheets

By law, the County will not receive any materials, products, or chemicals which may be hazardous to an employee's health unless accompanied by a Material Safety Data Sheet (MSDS). This MSDS will be reviewed by the County, and if approved, the materials, product or chemical can be used. If the MSDS is rejected, the Contractor must identify a substitute that will meet the County's criteria for approval.

3.6 Business, Professional, and Occupational License Requirement

All firms or individuals located or doing business in Loudoun County are required to be licensed in accordance with the County's "Business, Professional, and Occupational Licensing (BPOL) Tax" Ordinance during the initial term of the Contract or any renewal period.

Wholesale and retail merchants without a business location in Loudoun County are exempt from this requirement. Questions concerning the BPOL Tax should be directed to the Office of Commissioner of Revenue, telephone (703) 777-0260.

3.7 Payment of Taxes

All Contractors located or owning property in Loudoun County shall assure that all real and personal property taxes are paid.

The County will verify payment of all real and personal property taxes by the Contractor prior to the award of any Contract or Contract renewal.

3.8 Insurance

- A. The Contractor shall be responsible for its work and every part thereof, and for all materials, tools, equipment, appliances, and property of any and all description used in connection therewith. The Contractor assumes all risk of direct and indirect damage or injury to the property or persons used or employed on or in connection with the work contracted for, and of all damage or injury to any person or property wherever located, resulting from any action, omission, commission or operation under the Contract.
- B. The Contractor and all subcontractors shall, during the continuance of all work under the Contract provide the following:
 1. Workers' compensation and Employer's Liability to protect the Contractor from any liability or damages for any injuries (including death and disability) to any and all of its employees, including any and all liability or damage which may arise by virtue of any statute or law in force within the Commonwealth of Virginia.
 2. Comprehensive General Liability insurance to protect the Contractor, and the interest of the County, its officers, employees, and agents against any and all injuries to third parties, including bodily injury and personal injury, wherever located, resulting from any action or operation under the Contract or in connection with the contracted work. The General Liability insurance shall also include the Broad Form Property Damage endorsement, in addition to coverage for explosion, collapse, and underground hazards, where required.
 3. Automobile Liability insurance, covering all owned, non-owned, borrowed, leased, or rented vehicles operated by the Contractor.

- C. The Contractor agrees to provide the above referenced policies with the following limits. Liability insurance limits may be arranged by General Liability and Automobile policies for the full limits required, or by a combination of underlying policies for lesser limits with the remaining limits provided by an Excess or Umbrella Liability policy.

1. Workers' Compensation:
Coverage A: Statutory
Coverage B: \$100,000
2. General Liability:
Per Occurrence: \$1,000,000
Personal/Advertising Injury: \$1,000,000
General Aggregate: \$2,000,000
Products/Completed Operations: \$2,000,000
aggregate
Fire Damage Legal Liability: \$100,000

GL Coverage, excluding Products and Completed Operations, should be on a Per Project Basis

3. Automobile Liability:
Combined Single Limit: \$1,000,000

- D. The following provisions shall be agreed to by the Contractor:

1. No change, cancellation, or non-renewal shall be made in any insurance coverage without a forty-five (45) day written notice to the County. The Contractor shall furnish a new certificate prior to any change or cancellation date. The failure of the Contractor to deliver a new and valid certificate will result in suspension of all payments until the new certificate is furnished.
2. Liability Insurance "Claims Made" basis:

If the liability insurance purchased by the Contractor has been issued on a "claims made" basis, the Contractor must comply with the following additional conditions. The limits of liability and the extensions to be included as described previously in these provisions, remain the same. The Contractor must either:
 - a. Agree to provide certificates of insurance evidencing the above coverage for a period of two (2) years after final payment for the Contract for General Liability policies. This certificate shall evidence a "retroactive date" no later than the beginning of the Contractor's work under this Contract, or
 - b. Purchase the extended reporting period endorsement for the policy or policies in force during the term of this Contract and evidence the purchase of this extended reporting period endorsement by means of a certificate of insurance or a copy of the endorsement itself.
3. The Contractor must disclose the amount of deductible/self-insured retention applicable to the General Liability and Automobile Liability. The County reserves the right to request additional information to determine if the Contractor has the financial capacity to meet its obligations under a deductible/self-insured plan. If this provision is

utilized, the Contractor will be permitted to provide evidence of its ability to fund the deductible/self-insured retention.

4.
 - a. The Contractor agrees to provide insurance issued by Companies admitted within the Commonwealth of Virginia, with the Best's Key Rating of at least A:VII.
 - b. European markets including those based in London, and the domestic surplus lines market that operate on a non-admitted basis are exempt from this requirement provided that the Contractor's broker can provide financial data to establish that a market's policyholder surpluses are equal to or exceed the surpluses that correspond to Best's A:VII Rating.
 5.
 - a. The Contractor will provide an original signed Certificate of Insurance and such endorsements as prescribed herein.
 - b. The Contractor will provide on request certified copies of all insurance coverage related to the Contract within ten (10) business days of request by the County. These certified copies will be sent to the County from the Contractor's insurance agent or representative. Any request made under this provision will be deemed confidential and proprietary.
 - c. Any certificates provided shall indicate the Contract name and number.
 6. The County, its officers and employees shall be Endorsed to the Contractor's Automobile and General Liability policies as an "additional insured" with the provision that this coverage "is primary to all other coverage the County may possess." (Use "loss payee" where there is an insurable interest). A Certificate of Insurance evidencing the additional insured status must be presented to the County along with a copy of the Endorsement.
 7. Compliance by the Contractor with the foregoing requirements as to carrying insurance shall not relieve the Contractor of their liabilities provisions of the Contract.

E. Precaution shall be exercised at all times for the protection of persons (including employees) and property.

F. The Consultant is to comply with the Occupational Safety and Health Act of 1970, Public Law 91-956, as it may apply to this Contract.

G. If an "ACORD" Insurance Certificate form is used by the Contractor's insurance agent, the words "endeavor to" and ". . . but failure to mail such notice shall impose no obligation or liability of any kind upon the company" in the "Cancellation" paragraph of the form shall be deleted.

H. The Contractor agrees to waive all rights of subrogation against the County, its officers, employees, and agents.

3.9 Hold Harmless

The Contractor shall, indemnify, defend, and hold harmless the County from loss from all suits, actions, or claims of any kind brought as a consequence of any negligent act or omission by the Contractor. The Contractor agrees that this clause shall include

claims involving infringement of patent or copyright. For purposes of this paragraph, "County" and "Contractor" includes their employees, officials, agents, and representatives. "Contractor" also includes subcontractors and suppliers to the Contractor. The word "defend" means to provide legal counsel for the County or to reimburse the County for its attorney's fees and costs related to the claim. This section shall survive the Contract. The County is prohibited from indemnifying Contractor and/or any other third parties.

3.10 Safety

All Contractors and subcontractors performing services for the County are required to and shall comply with all Occupational Safety and Health Administration (OSHA), State and County Safety and Occupational Health Standards and any other applicable rules and regulations. Also, all Contractors and subcontractors shall be held responsible for the safety of their employees and any unsafe acts or conditions that may cause injury or damage to any persons or property within and around the work site area under this Contract.

3.11 Permits

It shall be the responsibility of the Contractor to comply with County ordinances by securing any necessary permits. The County will waive any fees involved in securing County permits.

3.12 Notice of Required Disability Legislation Compliance

The County is required to comply with state and federal disability legislation: The Rehabilitation Act of 1973 Section 504, The Americans with Disabilities Act (ADA) for 1990 Title II and The Virginians with Disabilities Act of 1990.

Specifically, Loudoun County, may not, through its contractual and/or financial arrangements, directly or indirectly avoid compliance with Title II of the Americans with Disabilities Act, Public Law 101-336, which prohibits discrimination by public entities on the basis of disability. Subtitle A protects qualified individuals with disability from discrimination on the basis of disability in the services, programs, or activities of all state and local governments. It extends the prohibition of discrimination in federally assisted programs established by the Rehabilitation Act of 1973 Section 504 to all activities of state and local governments, including those that do not receive federal financial assistance, and incorporates specific prohibitions of discrimination on the basis of disability in Titles I, III, and V of the Americans with Disabilities Act. The Virginians with Disabilities Act of 1990 follows the Rehabilitation Act of 1973 Section 504.

3.13 Ethics in Public Contracting

The provisions contained in §§ 2.2-4367 through 2.2-4377 of the Virginia Public Procurement Act as set forth in the 1950 Code of Virginia, as amended, shall be applicable to all Contracts solicited or entered into by the County. A copy of these provisions may be obtained from the Purchasing Agent upon request.

The above-stated provisions supplement, but do not supersede, other provisions of law including, but not limited to, the Virginia State and Local Government Conflict of Interests Act (§ 2.2-3100 et seq.), the Virginia Governmental Frauds Act (§ 18.2-498.1 et seq.) and Articles 2 and 3 of Chapter 10 of Title 18.2. The provisions apply notwithstanding the fact that the conduct described may not constitute a violation of the Virginia State and Local Government Conflict of Interests Act.

3.14 Employment Discrimination by Contractors Prohibited

Every Contract of over \$10,000 shall include the following provisions:

A. During the performance of this Contract, the Contractor agrees as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, status as a service disabled veteran, or any other basis prohibited by state law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
2. The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, shall state that such Contractor is an equal opportunity employer.
3. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient to meet this requirement.

B. The Contractor will include the provisions of the foregoing paragraphs, 1, 2, and 3 in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

3.15 Drug-free Workplace

Every Contract over \$10,000 shall include the following provisions

During the performance of this Contract, the Contractor agrees to (i) provide a drug-free workplace for the Contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific Contract awarded to a Contractor in accordance with this chapter, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana during the performance of the Contract.

3.16 Faith-Based Organizations

The County does not discriminate against faith-based organizations.

3.17 Immigration Reform and Control Act of 1986

By entering this Contract, the Contractor certifies that it does not and will not during the performance of this Contract violate the provisions of the Federal Immigration Reform and Control Act of 1986, which prohibits employment of illegal aliens.

3.18 Substitutions

NO substitutions or cancellations are permitted after Agreement award without written approval by the Division of Procurement. Where specific employees are proposed by the Contractor for the work, those employees shall perform the work as long as those employees work for the Contractor, either as employees or subcontractors, unless the County agrees to a substitution. Requests for substitutions will be reviewed by the County and approval may be given by the County at its sole discretion.

3.19 Condition of Items

All items shall be new, in first class condition, including containers suitable for shipment and storage, unless otherwise indicated herein or as may be agreed to by the parties in a written amendment to this Agreement. Oral or written but unsigned agreements to the contrary will not be recognized.

3.20 Workmanship and Inspection

All work under this Contract shall be performed in a skillful and workmanlike manner. The Contractor and its employees shall be professional and courteous at all times. The County reserves the right to require immediate removal of any Contractor employee from County service it deems unfit for service for any reason, not contrary to law. This right is non-negotiable and the Contractor agrees to this condition by accepting this Agreement. Further, the County may, from time to time, make inspections of the work performed under the Agreement. Any inspection by the County does not relieve the Contractor of any responsibility in meeting the Agreement requirements.

3.21 Cleaning Up

The Contractor shall at all times keep the adjacent areas of the property free from rubbish and the accumulation of any waste materials. Contractor shall be responsible for the removal of all trash at the end of each day, or more frequently as may be required by the Contract Administrator.

3.22 Exemption from Taxes

Pursuant to Va. Code § 58.1-609.1, the County is exempt from Virginia State Sales or Use Taxes and Federal Excise Tax, therefore the Contractor shall not charge the County for Virginia State Sales or Use Taxes or Federal Excise Tax on the finished goods or products provided under the Contract. However, this exemption does not apply to the Contractor, and the Contractor shall be responsible for the payment of any sales, use, or excise tax it incurs in providing the goods required by the Contract, including, but not limited to, taxes on materials purchased by a Contractor for incorporation in or use on a construction project. Nothing in this section shall prohibit the Contractor from including its own sales tax expense in connection with the Contract in its Contract price.

3.23 Ordering, Invoicing and Payment

All work requested under this Contract shall be placed on a County issued Purchase Order. The Contractor shall not accept credit card orders or payments.

Upon delivery and acceptance of the equipment and/or service, the Contractor shall submit an invoice detailing the appropriate charges.

Invoices shall be submitted to:

County of Loudoun, Virginia
Department of General Services
Waste Management Division
801 Sycolin Road SE, 3rd Floor
PO Box 7100
Leesburg, VA 20175

Upon receipt of invoice and final inspection and acceptance of the equipment and/or service, the County will render payment within forty-five (45) days unless any items thereon are questioned, in which event payment will be withheld pending verification of the amount claimed and the validity of the claim. The Contractor shall provide complete cooperation during any such investigation. Unless invoice items are questioned, the interest shall accrue at the rate of one percent (1%) per month for any late payments.

Individual Contractors shall provide their social security numbers; and proprietorships, partnerships, and corporations shall provide their federal employer identification number on the pricing form.

3.24 Payments to Subcontractors

Within seven (7) days after receipt of amounts paid by the County for work performed by a subcontractor under this Contract, the Contractor shall either:

- A. Pay the subcontractor for the proportionate share of the total payment received from the County attributable to the work performed by the subcontractor under this Contract; or
- B. Notify the County and subcontractor, in writing, of his intention to withhold all or a part of the subcontractor's payment and the reason for non-payment.

The Contractor shall pay interest to the subcontractor on all amounts owed that remain unpaid beyond the seven (7) day period except for amounts withheld as allowed in item B. above.

Unless otherwise provided under the terms of this Contract, interest shall accrue at the rate of one percent (1%) per month.

The Contractor shall include in each of its subcontracts a provision requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements as set forth above with respect to each lower-tier subcontractor.

The Contractor's obligation to pay an interest charge to a subcontractor pursuant to this provision may not be construed to be an obligation of the County.

3.25 Assignment

The Agreement may not be assigned in whole or in part without the prior written consent of the Division of Procurement. The rights and obligations of the Contractor are personal and may be performed only by the Contractor. Any purported assignment that does not comply with this provision is void. This Agreement is binding upon and inures to the benefit of the parties and their respective permitted successors and assigns.

3.26 Termination

Subject to the provisions below, this Contract may be terminated by the County upon thirty (30) days advance written notice to the Contractor; but if any work or service

hereunder is in progress, but not completed as of the date of termination, then the Contract may be extended upon written approval of the County until said work or services are completed and accepted.

A. Termination for Convenience

The County may terminate this Contract for convenience in which the case the parties shall negotiate reasonable termination costs.

B. Termination for Cause

In the event of Termination for Cause, the thirty (30) days advance notice is waived and the Contractor shall not be entitled to termination costs.

3.27 Contractual Disputes

The Contractor shall give written notice to the Purchasing Agent of intent to file a claim for money or other relief within ten (10) calendar days of the occurrence giving rise to the claim or at the beginning of the work upon which the claim is to be based, whichever is earlier.

The Contractor shall submit its invoice for final payment within thirty (30) days after completion or delivery.

The claim, with supporting documentation, shall be submitted to the Purchasing Agent by US Mail, return receipt requested, courier, or overnight delivery service, no later than sixty (60) days after final payment. If the claim is not disposed of by agreement, the Purchasing Agent shall reduce his/her decision to writing and mail via U.S. mail or otherwise forward a copy thereof to the Contractor within thirty (30) days of the County's receipt of the claim.

The Purchasing Agent's decision shall be final unless the Contractor appeals within thirty (30) days by submitting a written letter of appeal to the County Administrator, or his designee. The County Administrator shall render a decision within sixty (60) days of receipt of the appeal.

No Contractor shall institute any legal action until all statutory requirements have been met. Each party shall bear its own costs and expenses resulting from any litigation, including attorney's fees.

3.28 Severability

In the event that any provision shall be adjudged or decreed to be invalid by a court of competent jurisdiction, such ruling shall not invalidate the entire Agreement but shall pertain only to the provision in question and the remaining provisions shall continue to be valid, binding and in full force and effect.

3.29 Warranty

Contractor warrants that the goods furnished hereunder shall conform to the requirements of this Contract (including all descriptions, specifications and drawings made a part hereof), and such goods will be merchantable, fit for their intended purposes, free from all defects in materials and workmanship and to the extent not manufactured pursuant to detailed designs furnished by the County, free from defects in design. The County's approval of designs or specifications furnished by the Contractor shall not relieve the Contractor of its obligations under this warranty.

In addition to any specific warranty required by the Contract documents, Contractor warrants all work against defects on the plants for a period of one (1) year from the date of acceptance, unless specified otherwise. Contractor shall secure and assign to

the County all written warranties furnished to the Contractor or its subcontractors by any supplier.

All periods of warranty shall commence on the date of acceptance of the plants.

All warranties, including special warranties specified elsewhere herein, shall inure to the County, its successors, assigns, customer agencies and users of the goods and services."

3.30 Governing Law/Forum

This Agreement shall be governed and construed in all respects by its terms and by the laws of the Commonwealth of Virginia, without giving effect to its conflicts of laws provisions. Any judicial action shall be filed in the Commonwealth of Virginia, County of Loudoun. Contractor expressly waives any objection to venue or jurisdiction of the Loudoun County Circuit Court, Loudoun County, Virginia. Contractor expressly consents to waiver of service of process in an action pending in the Loudoun County Circuit Court pursuant to Virginia Code Section 8.01-286.1.

3.31 Licensure

To the extent required by the Commonwealth of Virginia (see *e.g.* 54.1-1100 *et seq.* of the Code of Virginia) or the County, the Contractor shall be duly licensed to perform the services required to be delivered pursuant to this Contract.

3.32 Authority to Transact Business in Virginia

A Contractor organized as a stock or nonstock corporation, limited liability company, business trust, or limited partnership or registered as a registered limited liability partnership shall be authorized to transact business in the Commonwealth as a domestic or foreign business entity if so required by Title 13.1 or Title 50 of the Code of Virginia or as otherwise required by law. Any business entity described herein that enters into a Contract with the County pursuant to the Virginia Public Procurement Act 2.2-4300 *et seq.* shall not allow its existence to lapse or its certificate of authority or registration to transact business in the Commonwealth, if so required under Title 13.1 or Title 50 of the Code of Virginia, to be revoked or cancelled at any time during the term of the Contract. The County may void any Contract with a business entity if the business entity fails to remain in compliance with the provisions of this section.

3.33 Counterparts

This Contract and any amendments or renewals hereto may be executed in a number of counterparts, and each counterpart signature, when taken with the other counterpart signatures, is treated as if executed upon one original of this Contract or any amendment or renewal. A signature by any party to this Contract provided by facsimile or electronic mail is binding upon that party as if it were the original.

3.34 Confidentiality

A. Contractor Confidentiality

The Contractor acknowledges and understands that its employees may have access to proprietary, business information, or other confidential information belonging to the County. Therefore, except as required by law, the Contractor agrees that its employees will not:

1. Access or attempt to access data that is unrelated to their job duties or authorizations as related to this Agreement.
2. Access or attempt to access information beyond their stated authorization.
3. Disclose to any other person or allow any other person access to any information related to the County or any of its facilities or any other user of this Agreement that is proprietary or confidential. Disclosure of information includes, but is not limited to, verbal discussions, FAX transmissions, electronic mail messages, voice mail communication, written documentation, "loaning" computer access codes and/or another transmission or sharing of data.

The Contractor understands that the County, or others may suffer irreparable harm by disclosure of proprietary or confidential information and that the County may seek legal remedies available to it should such disclosure occur. Further, the Contractor understands that violations of this provision may result in termination of the Agreement.

The Contractor understands that information and data obtained during the performance of this agreement shall be considered confidential, during and following the term of this Agreement, and will not be divulged without the Purchasing Agent's written consent and then only in strict accordance with prevailing laws. The Contractor shall hold all information provided by the County as proprietary and confidential, and shall make no unauthorized reproduction or distribution of such material.

B. County Confidentiality

In addition, the County understands that certain information provided by the Contractor during the performance of this Agreement may also contain confidential or proprietary information. All information will be maintained in accordance with the Virginia Freedom of Information Act.

3.35 Force Majeure

A party is not liable for failure to perform the party's obligations if such failure is as a result of Acts of God (including fire, flood, earthquake, storm, hurricane or other natural disaster), war, invasion, act of foreign enemies, hostilities (regardless of whether war is declared), civil war, rebellion, revolution, insurrection, military or usurped power or confiscation, terrorist activities, nationalization, government sanction, blockage, embargo, strikes at national level or industrial disputes at a national level, or strike or industrial disputes by labor not employed by the affected party, its subcontractors or its suppliers and which affect an essential portion of the contracted for works but excluding any industrial dispute which is specific to the performance of the works or this contract, interruption or failure of electricity or telephone service.

If a party asserts Force Majeure as an excuse for failure to perform the party's obligation, that party must immediately notify the other party giving full particulars of the event of force majeure and the reasons for the event of force majeure preventing that party from, or delaying that party in performing its obligations under this contract and that party must use its reasonable efforts to mitigate the effect of the event of force majeure upon its or their performance of the contract and to fulfill its or their obligations under the contract.

An event of force majeure does not relieve a party from liability for an obligation which arose before the occurrence of that event, nor does that event affect the obligation to pay money in a timely manner which matured prior to the occurrence of that event.

The Contractor has no entitlement and County has no liability for: (1) any costs, losses, expenses, damages or the payment of any part of the contract price during an event of force majeure; and (2) any delay costs in any way incurred by the contractor due to an event of force majeure.

3.36 Survival of Terms

Upon discharge of this Agreement, Sections (Notice, Hold Harmless, Warranties, Governing Law/Forum, Contractual Disputes) of these Terms and Conditions continue and survive in full force and effect.

3.37 Non-Waiver

No waiver of any provision of this Agreement shall constitute a waiver of any other provision nor shall any waiver of this Agreement constitute a continuing waiver unless otherwise expressly provided.

4.0 INSTRUCTIONS FOR SUBMISSION OF QUOTES

4.1 Submission of Quotes

Before submitting a quote, read the ENTIRE solicitation including the Terms and Conditions. Failure to read any part of this solicitation will not relieve a vendor of the contractual obligations. Pricing must be submitted on the attached pricing form only. Include other information, as requested or required. The face of the container shall indicate the RFQ number, time and date of opening, and the title of the RFQ. Quotes must be received by the Division of Procurement BEFORE the hour specified on the opening date. Quotes may be either mailed or hand delivered to One Harrison Street, S.E., 4th Floor, MSC #41C, Leesburg, Virginia 20175 or e-mailed to Christopher.Bresley@loudoun.gov or faxed to Christopher Bresley at (703) 771-5097.

4.2 Authority to Bind Firm in Contract

Quotes MUST give full firm name and address of vendor. Failure to manually sign quote may disqualify it. Person signing quote will show TITLE or AUTHORITY TO BIND THE FIRM IN A CONTRACT. Firm name and authorized signature must appear on quote in the space provided on the pricing page. Those authorized to sign are as follows:

If a sole proprietorship, the owner may sign.

If a general partnership, any general partner may sign.

If a limited partnership, a general partner must sign.

If a limited liability company, a "member" may sign or "manager" must sign if so specified by the articles of organization

If a regular corporation, the CEO, President or Vice-President must sign.

Others may be granted authority to sign but the County requires that a corporate document authorizing him/her to sign be submitted with quote.

4.3 Proof of Authority to Transact Business in Virginia

A vendor organized or authorized to transact business in the Commonwealth pursuant to Title 13.1 or Title 50 of the Code of Virginia shall include in its bid or proposal the identification number issued to it by the State Corporation Commission. Any vendor that is not required to be authorized to transact business in the

Commonwealth as a foreign business entity under Title 13.1 or Title 50 of the Code of Virginia or as otherwise required by law shall include in its bid or proposal a statement describing why the vendor is not required to be so authorized. Any vendor described herein that fails to provide the required information shall not receive an award unless a waiver of this requirement and the administrative policies and procedures established to implement this section is granted by the Purchasing Agent or his designee. The SCC may be reached at (804) 371-9733 or at <http://www.scc.virginia.gov/default.aspx>.

4.4 References

All vendors shall include, with their quotes, a list of at least three (3) current references for whom comparable work has been performed. This list shall include company name, person to contact, address, telephone number, fax number, e-mail address, and the nature of the work performed. Failure to include references shall be cause for rejection of quote as non-responsible. Vendor hereby releases listed references from all claims and liability for damages that may result from the information provided by the reference.

4.5 Proprietary Information

Trade secrets or proprietary information submitted by a vendor in connection with this solicitation shall not be subject to disclosure under the Virginia Freedom of Information Act, provided the vendor follows the provisions of § 2.2-4342 of the Code of Virginia.

4.6 Rights of County

The County reserves the right to accept or reject all or any part of any proposal, waive informalities, and award the contract to best serve the interest of the County. Informality shall mean a minor defect or variation of a quote from the exact requirements of the Request for Quotation which does not affect the price, quality, quantity or delivery schedule for the goods, services or construction being procured.

4.7 Basis for Award

Contract award will be made to the lowest responsive and responsible vendor based on total cost.

Whenever the lowest responsive and responsible vendor is a resident of a state other than Virginia and such state under its laws allows a resident contractor of that state a percentage preference, a like preference shall be allowed to the lowest responsive and responsible vendor who is a resident of Virginia and is the next lowest bidder. If the lowest vendor is a resident contractor of a state with an absolute preference, the quote preference shall not be considered.

4.8 W-9 Form Required

Each vendor shall submit a completed W-9 form with their quote. In the event of contract award, this information is required in order to issue purchase orders and payments to your firm. A copy of this form can be downloaded from <http://www.irs.gov/pub/irs-pdf/fw9.pdf>.

4.9 Insurance Coverage

Vendors shall include with their quote a copy of their current Certificate of Insurance that illustrates the current level of coverage the vendor carries. The Certificate can be a current file copy and does not need to include any "additional insured" language for the County.

4.10 Legal Action

No vendor or potential vendor shall institute any legal action until all statutory requirements have been met.



Loudoun County, Virginia

Division of Procurement
One Harrison Street, 4th Floor, MSC #41C
Leesburg, Virginia 20175

INSTALLATION OF FORESTRY PLANTING AT THE LOUDOUN COUNTY SOLID WASTE MANAGEMENT FACILITY

THE FIRM OF: _____

Address: _____

FEIN# _____

NOTICE TO VENDORS: The plantings required by Section 2.0 – Scope of Work shall be completed prior to May 15, 2015 and provided according to the Terms and Conditions contained herein for:

Total Cost \$ _____

- A. Return the following with your quote. If vendor fails to provide with their quote, items shall be provided within twenty-four (24) hours of quote opening.

ITEM: INCLUDED: (X)

1. W-9 Form (4.8): _____
2. Certificate of Insurance (4.9): _____

- B. Failure to provide the following items with your quote shall be cause for rejection of quote as non-responsive and/or non-responsible. It is the responsibility of the vendor to ensure that it has received all addenda and to include signed copies with their quote.

ITEM: INCLUDED: (X)

1. Payment Terms: _____ net 30 or ___Other
2. Proof of Authority to Transact Business
in Virginia Form (Page 23): _____
3. References (4.4): _____

Person to contact regarding this quote: _____

Title: _____ Phone: _____ Fax: _____

E-mail _____

Name of person authorized to bind the Firm (4.2): _____

Signature: _____ Date: _____

By signing and submitting a quote, your firm acknowledges and agrees to the Terms and Conditions contained herein.



Loudoun County, Virginia

Division of Procurement
One Harrison Street, 4th Floor, MSC #41C
Leesburg, Virginia 20175

PROOF OF AUTHORITY TO TRANSACT BUSINESS IN VIRGINIA

THIS FORM MUST BE SUBMITTED WITH YOUR QUOTE. FAILURE TO INCLUDE THIS FORM SHALL RESULT IN REJECTION OF YOUR QUOTE

Pursuant to Virginia Code §2.2-4311.2, a vendor organized or authorized to transact business in the Commonwealth pursuant to Title 13.1 or Title 50 of the Code of Virginia shall include in its quote the identification number issued to it by the State Corporation Commission ("SCC"). Any vendor that is not required to be authorized to transact business in the Commonwealth as a foreign business entity under Title 13.1 or Title 50 of the Code of Virginia or as otherwise required by law shall include in its quote a statement describing why the vendor is not required to be so authorized. Any vendor described herein that fails to provide the required information shall not receive an award unless a waiver of this requirement and the administrative policies and procedures established to implement this section is granted by the Purchasing Agent or his designee.

If this quote for goods or services is accepted by the County of Loudoun, Virginia, the undersigned agrees that the requirements of the Code of Virginia Section 2.2-4311.2 have been met.

Please complete the following by checking the appropriate line that applies and providing the requested information. ***PLEASE NOTE: The SCC number is NOT your federal ID number or business license number.***

A. _____ Vendor is a Virginia business entity organized and authorized to transact business in Virginia by the SCC and such vendor's Identification Number issued to it by the SCC is _____.

B. _____ Vendor is an out-of-state (foreign) business entity that is authorized to transact business in Virginia by the SCC and such vendor's Identification Number issued to it by the SCC is _____.

C. _____ Vendor does not have an Identification Number issued to it by the SCC and such vendor is not required to be authorized to transact business in Virginia by the SCC for the following reason(s):

Please attach additional sheets of paper if you need to explain why such vendor is not required to be authorized to transact business in Virginia.

Legal Name of Company (as listed on W-9)

Legal Name of Vendor

Date

Authorized Signature

Print or Type Name and Title